NOTICE

All drawings located at the end of the document.

AL

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IHSS Group NE/NW

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Approval letter received from the Colorado Department of Public Health and Environment

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Approval letter contained in the Administrative Record

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IHSS Group NE/NW Real and Quality Control Data (Compact Disc)

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ACRONYMS AND ABBREVATIONS

AL	action level
ASD	Analytical Services Division
BZ	Buffer Zone
BZSAP	Buffer Zone Sampling and Analysis Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
DL	Detection Limit
DOE	U.S. Department of Energy
DQA	Data Quality Assessment
DQO	Data Quality Objective
EPA	U.S. Environmental Protection Agency
ER	Ecological Receptor
FY	Fiscal Year
HPGe	high-purity germanium detector
HRR	Historical Release Report
IHSS	Individual Hazardous Substance Site
K-H	Kaiser-Hill Company, L.L.C.
LCS	laboratory control spike
mg/kg	milligrams per kilogram
MS	matrix spike
MSD	matrix spike duplicate
NA	not available
NFAA	No Further Accelerated Action
PAC	Potential Area of Concern
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
PCBs	polychlorinated biphenyls
pCi/g	picocuries per gram
ppb	parts per billion
ppm	parts per million
PU&D	Property Utilization and Disposal
QC	Quality Control
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RIN	Report Identification Number
RL	Reporting Limit
SD	standard deviation
SOP	Standard Operation Procedure
SOR	sum of ratio
SSRS	Subsurface Soil Risk Screen
SVOC	semivolatile organic compound
SWD	Soil Water Database
TBD	to be determined
ug/kg	micrograms per kilogram
VOC	volatile organic compound
V&V	Verification and Validation
WRW	Wildlife Refuge Worker

1.0 INTRODUCTION

This Data Summary Report summarizes characterization activities conducted at Individual Hazardous Substance Site (IHSS) Group NE/NW located in the Buffer Zone (BZ) at the Rocky Flats Environmental Technology Site (RFETS) in Golden, Colorado. Characterization activities were conducted in accordance with the Buffer Zone Sampling and Analysis Plan (BZSAP) (DOE 2002a) and BZSAP Addendum #BZ-02-01 (DOE 2002b).

The IHSSs and Potential Areas of Concern (PACs) included in this report are listed in Table 1 and shown on Figure 1.

Table 1 IHSS Group NE/NW Description

BZ Group	IHSS/PAC Description
NE	IHSS 216.2 – East Spray Field-Center Area
	IHSS 216.3 – East Spray Field-South Area
	PAC NE-1407 – OU 2 Treatment Facility
	PAC NE-1412 – Trench T-12 (located at OU 2 East Trenches)
	PAC NE-1413 – Trench T-13 (located at OU 2 East Trenches)
NW	IHSS 174a – Property Utilization And Disposal (PU&D) Yard - Drum Storage Area

2.0 SITE CHARACTERIZATION

IHSS Group NE/NW information consists of historical knowledge (DOE 1992-2002) and 55 additional sampling locations as described in BZSAP Addendum #BZ-02-01 (DOE 2002b). The sampling specifications for the characterization samples collected are listed in Table 2. The locations of these samples and associated analytical results with Wildlife Refuge Worker (WRW) action levels (ALs) greater than background mean plus two standard deviations or detection/reporting limits are presented in Figures 2 through 6 and Tables 3 and 4. Figure 7 depicts areas prone to landslides and high erosion. A summary of the analytical results is presented in Tables 5 and 6. Surface and subsurface sum of ratios for radionuclides are presented in Tables 7 and 8. Deviations from planned sampling specifications are presented in Table 9. A summary of validated analytical records is presented in Tables 10 through 17. The real and quality control (QC) data are enclosed on a compact disc.

No Further Accelerated Action (NFAA) for IHSS Group NE/NW is warranted based on the following Subsurface Soil Risk Screen (SSRS) identified in Figure 3 in Attachment 5 of the RFCA Modification (DOE, et al. 2003).

Screen 1 – Are the contaminant of concern (COC) concentrations below RFCA Table 3 WRW Soil Action Levels?

Yes, all COC concentrations are below the WRW ALs (Screens 2 and 3 are bypassed). It should be noted that plutonium-239/240 at sample location CW40-003 is 88 pCi/g (see Figure 6). However, this surface sample location is overlapped by IHSS 155 and is likely

to be associated with wind-blown contamination from the 903 Pad area. As such, it will be addressed as part of IHSS 155.

Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause an exceedance of the surface water standard (SWS)?

Contamination migration via erosion and groundwater are the two possible pathways whereby surface water could become contaminated by the East Spray Fields (IHSSs 216.2 and 216.3), Trenches T-12 (PAC NE-1412) and T-13 (PAC NE-1413), and the PU&D Yard (IHSS 174a). Based on the review of Figure 1 of the RFCA Modification Attachment 5 (DOE, et al. 2003), IHSS Group NE/NW is not located in an area prone to landslides or high erosion except for a small portion of the southeast corner of IHSS 216.3 (see Figure 7). In addition, the nearest body of water is South Walnut Creek located approximately 800 feet north of IHSS Group NE. Based on the distance of the nearest body of water and the majority of the IHSS Group being in an area not prone to landslides or high erosion, it appears unlikely that this IHSS Group would cause an exceedance of the SWS.

Groundwater in the area of IHSS Group NE flows in a northeasterly direction. Analytical data from groundwater monitoring wells in this area were reviewed. Wells 4186, 4286 and 07891 were identified with contaminants above groundwater Tier I ALs. The contaminants are carbon tetrachloride, tetrachloroethene, trichloroethene, methylene chloride, dibromo-3-chloropropane 1,2 and plutonium-239/240.

Wells 4286 and 07891 are located downgradient or crossgradient of IHSS Group NE and well 4186 is located upgradient of IHSS 216.2 and part of IHSS 216.3. Based on the position of the wells, it does not appear that this IHSS Group has caused a groundwater Tier I AL exceedance. Consequently, there does not appear to be a sufficient quantity of COCs that would cause an exceedance of the SWS.

Screen 5 – Are COC concentrations below Table 3 Action Levels for Ecological Receptors?

All COC concentrations are below the ALs for Ecological Receptors except for lead. Lead exceeds the Ecological Receptor AL of 25.6 mg/kg in two surface soil locations. However, these widely-spaced locations appear to be "hot spots" that are not representative of the IHSS Group.

Analytical results and the above Subsurface Soil Risk Screen indicate that an NFAA is justified for IHSS Group NE/NW. Approval of this Data Summary Report constitutes regulatory agency concurrence of this IHSS Group as an NFAA. This information and NFAA determination will be documented in the FY03 Historical Release Report (HRR).

THIS TARGET SHEET REPRESENTS AN
OVER-SIZED MAP / PLATE FOR THIS DOCUMENT:
(Ref: 03-RF-01114; JLB-071-03)

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Figure 2:

Surface Soil Sample Results Greater than Background Mean Plus Two Standard Deviations or Detection/Reporting Limit

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June 2, 2003

CERCLA Administrative Record Document, BZ-A-000610

U.S. DEPARTEMENT OF ENERGY
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

GOLDEN, COLORADO

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(Ref: 03-RF-01114; JLB-071-03)

Date Summary Report
IHSS Group NE/NW

July 2003

Figure 4:

NE Subsurface Soil Sample Results Greater than Background Mean Plus Two Standard Deviations or Detection/Reporting Limit

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June 2, 2003

CERCLA Administrative Record Document, BZ-A-000610

U.S. DEPARTEMENT OF ENERGY
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

GOLDEN, COLORADO

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
NE	IHSS 216.2 – East Spray Field-Center Area	DB43-000	2088219.15	750163.83	Surface Soil	0-0.5'	Radionuclides	HPGe
		DB43-000	2088219.15	750163.83	Surface Soil	0-0.5'	Metals	6010A
		DB43-000	2088219.15	750163.83	Surface Soil	0-0.5'	SVOCs	8270C
		DB43-000	2088219.15	750163.83	Surface Soil	0-0.5'	PCBs	8082
		DB43-000	2088219.15	750163.83	Surface Soil	0-0.5'	Pesticides	8081A
		DB44-000	2088317.84	750231.30	Surface Soil	0-0.5'	Radionuclides	HPGe
		DB44-000	2088317.84	750231.30	Surface Soil	0-0.5'	Metals	6010A
		DB44-000	2088317.84	750231.30	Surface Soil	0-0.5'	SVOCs	8270C
		DB44-000	2088317.84	750231.30	Surface Soil	0-0.5'	PCBs	8082
		DB44-000	2088317.84	750231.30	Surface Soil	0-0.5'	Pesticides	8081A
		DC43-000	2088442.46	750152.87	Surface Soil	0-0.5'	Radionuclides	HPGe
		DC43-000	2088442.46	750152.87	Surface Soil	0-0.5'	Metals	6010A
		DC43-000	2088442.46	750152.87	Surface Soil	0-0.5'	SVOCs	8270C
		DC43-000	2088442.46	750152.87	Surface Soil	0-0.5'	PCBs	8082
		DC43-000	2088442.46	750152.87	Surface Soil	0-0.5'	Pesticides	8081A
		DC45-000	2088455.44	750459.28	Surface Soil	0-0.5'	Radionuclides	HPGe
		DC45-000	2088455.44	750459.28	Surface Soil	0-0.5'	Metals	6010A
		DC45-000	2088455.44	750459.28	Surface Soil	0-0.5'	SVOCs	8270C
		DC45-000	2088455.44	750459.28	Surface Soil	0-0.5'	PCBs	8082
		DC45-000	2088455.44	750459.28	Surface Soil	0-0.5'	Pesticides	8081A
		DD43-000	2088438.18	750004.16	Surface Soil	0-0.5'	Radionuclides	HPGe
		DD43-000	2088438.18	750004.16	Surface Soil	0-0.5'	Metals	6010A
		DD43-000	2088438.18	750004.16	Surface Soil	0-0.5'	SVOCs	8270C
		DD43-000	2088438.18	750004.16	Surface Soil	0-0.5'	PCBs	8082
		DD43-000	2088438.18	750004.16	Surface Soil	0-0.5'	Pesticides	8081A
		DD44-000	2088472.83	750275.17	Surface Soil	0-0.5'	Radionuclides	HPGe

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		DD44-000	2088472.83	750275.17	Surface Soil	0-0.5'	Metals	6010A
		DD44-000	2088472.83	750275.17	Surface Soil	0-0.5'	SVOCs	8270C
		DD44-000	2088472.83	750275.17	Surface Soil	0-0.5'	PCBs	8082
		DD44-000	2088472.83	750275.17	Surface Soil	0-0.5'	Pesticides	8081A
	IHSS 216.3 – East Spray Field – South Area	DB43-001	2088225.51	749962.66	Surface Soil	0-0.5'	Radionuclides	HPGe
		DB43-001	2088225.51	749962.66	Surface Soil	0-0.5'	Metals	6010A
		DB43-001	2088225.51	749962.66	Surface Soil	0-0.5'	SVOCs	8270C
		DB43-001	2088225.51	749962.66	Surface Soil	0-0.5'	PCBs	8082
		DB43-001	2088225.51	749962.66	Surface Soil	0-0.5'	Pesticides	8081A
		DB43-001	2088225.51	749962.66	Subsurface Soil	05'-2.5'	VOCs	8260B
		DD43-001	2088548.16	750006.90	Surface Soil	0-0.5'	Radionuclides	HPGe
		DD43-001	2088548.16	750006.90	Surface Soil	0-0.5'	Metals	6010A
		DD43-001	2088548.16	750006.90	Surface Soil	0-0.5'	SVOCcs	8270C
		DD43-001	2088548.16	750006.90	Surface Soil	0-0.5'	PCBs	8082
		DD43-001	2088548.16	750006.90	Surface Soil	0-0.5'	Pesticides	8081A
		DD43-001	2088548.16	750006.90	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DC42-000	2088475.30	749921.03	Surface Soil	0-0.5'	Radionuclides	HPGe
		DC42-000	2088475.30	749921.03	Surface Soil	0-0.5'	Metals	6010A
		DC42-000	2088475.30	749921.03	Surface Soil	0-0.5'	SVOCs	8270C
		DC42-000	2088475.30	749921.03	Surface Soil	0-0.5'	PCBs	8082
		DC42-000	2088475.30	749921.03	Surface Soil	0-0.5'	Pesticides	8081A
		DC42-000	2088475.30	749921.03	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DC41-000	2088420.66	749720.68	Surface Soil	0-0.5'	Radionuclides	HPGe
		DC41-000	2088420.66	749720.68	Surface Soil	0-0.5'	Metals	6010A
		DC41-000	2088420.66	749720.68	Surface Soil	0-0.5'	SVOCcs	8270C
		DC41-000	2088420.66	749720.68	Surface Soil	0-0.5'	PCBs	8082

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		DC41-000	2088420.66	749720.68	Surface Soil	0-0.5'	Pesticides	8081A
		DC41-000	2088420.66	749720.68	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DB41-000	2088277.55	749577.57	Surface Soil	0-0.5'	Radionuclides	HPGe
		DB41-000	2088277.55	749577.57	Surface Soil	0-0.5'	Metals	6010A
		DB41-000	2088277.55	749577.57	Surface Soil	0-0.5'	SVOCs	8270C
		DB41-000	2088277.55	749577.57	Surface Soil	0-0.5'	PCBs	8082
		DB41-000	2088277.55	749577.57	Surface Soil	0-0.5'	Pesticides	8081A
		DB41-000	2088277.55	749577.57	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DC40-000	2088394.64	749416.24	Surface Soil	0-0.5'	Radionuclides	HPGe
		DC40-000	2088394.64	749416.24	Surface Soil	0-0.5'	Metals	6010A
		DC40-000	2088394.64	749416.24	Surface Soil	0-0.5'	SVOCs	8270C
		DC40-000	2088394.64	749416.24	Surface Soil	0-0.5'	PCBs	8082
		DC40-000	2088394.64	749416.24	Surface Soil	0-0.5'	Pesticides	8081A
		DC40-000	2088394.64	749416.24	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DB39-000	2088267.14	749247.11	Surface Soil	0-0.5'	Radionuclides	HPGe
		DB39-000	2088267.14	749247.11	Surface Soil	0-0.5'	Metals	6010A
		DB39-000	2088267.14	749247.11	Surface Soil	0-0.5'	SVOCs	8270C
		DB39-000	2088267.14	749247.11	Surface Soil	0-0.5'	PCBs	8082
		DB39-000	2088267.14	749247.11	Surface Soil	0-0.5'	Pesticides	8081A
		DB39-000	2088267.14	749247.11	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DB39-001	2088319.18	749273.13	Surface Soil	0-0.5'	Radionuclides	HPGe
		DB39-001	2088319.18	749273.13	Surface Soil	0-0.5'	Metals	6010A
		DB39-001	2088319.18	749273.13	Surface Soil	0-0.5'	SVOCs	8270C
		DB39-001	2088319.18	749273.13	Surface Soil	0-0.5'	PCBs	8082
		DB39-001	2088319.18	749273.13	Surface Soil	0-0.5'	Pesticides	8081A
		DB39-001	2088319.18	749273.13	Subsurface Soil	0.5'-2.5'	VOCs	8260B

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		DD40-000	2088550.76	749551.55	Surface Soil	0-0.5'	Radionuclides	HPGe
		DD40-000	2088550.76	749551.55	Surface Soil	0-0.5'	Metals	6010A
		DD40-000	2088550.76	749551.55	Surface Soil	0-0.5'	SVOCs	8270C
		DD40-000	2088550.76	749551.55	Surface Soil	0-0.5'	PCBs	8082
		DD40-000	2088550.76	749551.55	Surface Soil	0-0.5'	Pesticides	8081A
		DD40-000	2088550.76	749551.55	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DD42-000	2088662.65	749783.13	Surface Soil	0-0.5'	Radionuclides	HPGe
		DD42-000	2088662.65	749783.13	Surface Soil	0-0.5'	Metals	6010A
		DD42-000	2088662.65	749783.13	Surface Soil	0-0.5'	SVOCs	8270C
		DD42-000	2088662.65	749783.13	Surface Soil	0-0.5'	PCBs	8082
		DD42-000	2088662.65	749783.13	Surface Soil	0-0.5'	Pesticides	8081A
		DD42-000	2088662.65	749783.13	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DE42-000	2088831.78	749949.65	Surface Soil	0-0.5'	Radionuclides	HPGe
		DE42-000	2088831.78	749949.65	Surface Soil	0-0.5'	Metals	6010A
		DE42-000	2088831.78	749949.65	Surface Soil	0-0.5'	SVOCs	8270C
		DE42-000	2088831.78	749949.65	Surface Soil	0-0.5'	PCBs	8082
		DE42-000	2088831.78	749949.65	Surface Soil	0-0.5'	Pesticides	8081A
		DE42-000	2088831.78	749949.65	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DF42-000	2089123.21	749910.62	Surface Soil	0-0.5'	Radionuclides	HPGe
		DF42-000	2089123.21	749910.62	Surface Soil	0-0.5'	Metals	6010A
		DF42-000	2089123.21	749910.62	Surface Soil	0-0.5'	SVOCs	8270C
		DF42-000	2089123.21	749910.62	Surface Soil	0-0.5'	PCBs	8082
		DF42-000	2089123.21	749910.62	Surface Soil	0-0.5'	Pesticides	8081A
		DF42-000	2089123.21	749910.62	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DH43-000	2089362.59	749991.29	Surface Soil	0-0.5'	Radionuclides	HPGe
		DH43-000	2089362.59	749991.29	Surface Soil	0-0.5'	Metals	6010A

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		DH43-000	2089362.59	749991.29	Surface Soil	0-0.5'	SVOCs	8270C
		DH43-000	2089362.59	749991.29	Surface Soil	0-0.5'	PCBs	8082
		DH43-000	2089362.59	749991.29	Surface Soil	0-0.5'	Pesticides	8081A
		DH43-000	2089362.59	749991.29	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DG41-000	2089307.95	749744.10	Surface Soil	0-0.5'	Radionuclides	HPGe
		DG41-000	2089307.95	749744.10	Surface Soil	0-0.5'	Metals	6010A
		DG41-000	2089307.95	749744.10	Surface Soil	0-0.5'	SVOCs	8270C
		DG41-000	2089307.95	749744.10	Surface Soil	0-0.5'	PCBs	8082
		DG41-000	2089307.95	749744.10	Surface Soil	0-0.5'	Pesticides	8081A
		DG41-000	2089307.95	749744.10	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DF41-000	2088998.31	749741.49	Surface Soil	0-0.5'	Radionuclides	HPGe
		DF41-000	2088998.31	749741.49	Surface Soil	0-0.5'	Metals	6010A
		DF41-000	2088998.31	749741.49	Surface Soil	0-0.5'	SVOCs	8270C
		DF41-000	2088998.31	749741.49	Surface Soil	0-0.5'	PCBs	8082
		DF41-000	2088998.31	749741.49	Surface Soil	0-0.5'	Pesticides	8081A
		DF41-000	2088998.31	749741.49	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DF40-000	2089086.78	749483.89	Surface Soil	0-0.5'	Radionuclides	HPGe
		DF40-000	2089086.78	749483.89	Surface Soil	0-0.5'	Metals	6010A
		DF40-000	2089086.78	749483.89	Surface Soil	0-0.5'	SVOCs	8270C
		DF40-000	2089086.78	749483.89	Surface Soil	0-0.5'	PCBs	8082
		DF40-000	2089086.78	749483.89	Surface Soil	0-0.5'	Pesticides	8081A
		DF40-000	2089086.78	749483.89	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DE40-000	2088805.76	749554.15	Surface Soil	0-0.5'	Radionuclides	HPGe
		DE40-000	2088805.76	749554.15	Surface Soil	0-0.5'	Metals	6010A
		DE40-000	2088805.76	749554.15	Surface Soil	0-0.5'	SVOCs	8270C
		DE40-000	2088805.76	749554.15	Surface Soil	0-0.5'	PCBs	8082

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		DE40-000	2088805.76	749554.15	Surface Soil	0-0.5'	Pesticides	8081A
		DE40-000	2088805.76	749554.15	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DD39-000	2088639.23	749288.74	Surface Soil	0-0.5'	Radionuclides	HPGe
		DD39-000	2088639.23	749288.74	Surface Soil	0-0.5'	Metals	6010A
		DD39-000	2088639.23	749288.74	Surface Soil	0-0.5'	SVOCs	8270C
		DD39-000	2088639.23	749288.74	Surface Soil	0-0.5'	PCBs	8082
		DD39-000	2088639.23	749288.74	Surface Soil	0-0.5'	Pesticides	8081A
		DD39-000	2088639.23	749288.74	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DG41-001	2089248.22	749647.97	Surface Soil	0-0.5'	Radionuclides	HPGe
		DG41-001	2089248.22	749647.97	Surface Soil	0-0.5'	Metals	6010A
		DG41-001	2089248.22	749647.97	Surface Soil	0-0.5'	SVOCs	8270C
		DG41-001	2089248.22	749647.97	Surface Soil	0-0.5'	PCBs	8082
		DG41-001	2089248.22	749647.97	Surface Soil	0-0.5'	Pesticides	8081A
		DG41-001	2089248.22	749647.97	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		DC39-000	2088448.69	749186.93	Surface Soil	0-0.5'	Radionuclides	HPGe
		DC39-000	2088448.69	749186.93	Surface Soil	0-0.5'	Metals	6010A
		DC39-000	2088448.69	749186.93	Surface Soil	0-0.5'	SVOCs	8270C
		DC39-000	2088448.69	749186.93	Surface Soil	0-0.5'	PCBs	8082
		DC39-000	2088448.69	749186.93	Surface Soil	0-0.5'	Pesticides	8081A
		DC39-000	2088448.69	749186.93	Subsurface Soil	0.5'-2.5'	VOCs	8260B
	PAC NE-1412 – Trench T-12	CV41-000	2086966.71	749584.29	Surface Soil	0-0.5'	Radionuclides	HPGe
		CV41-000	2086966.71	749584.29	Surface Soil	0-0.5'	Metals	6010A
		CV41-000	2086966.71	749584.29	Surface Soil	0-0.5'	SVOCs	8270C
		CV41-000	2086966.71	749584.29	Surface Soil	0-0.5'	PCBs	8082
		CV41-000	2086966.71	749584.29	Subsurface Soil	0.5'-2.5'	Radionuclides	HPGe
		CV41-000	2086966.71	749584.29	Subsurface Soil	0.5'-2.5'	Metals	6010A

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-000	2086966.71	749584.29	Subsurface Soil	0.5'-2.5'	SVOCs	8270C
		CV41-000	2086966.71	749584.29	Subsurface Soil	0.5'-2.5'	VOCs	8260B
		CV41-000	2086966.71	749584.29	Subsurface Soil	0.5'-2.5'	PCBs	8082
		CV41-000	2086966.71	749584.29	Subsurface Soil	2.5-4.5'	Radionuclides	HPGe
		CV41-000	2086966.71	749584.29	Subsurface Soil	2.5-4.5'	Metals	6010A
		CV41-000	2086966.71	749584.29	Subsurface Soil	2.5-4.5'	SVOCs	8270C
		CV41-000	2086966.71	749584.29	Subsurface Soil	2.5-4.5'	VOCs	8260B
		CV41-000	2086966.71	749584.29	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-000	2086966.71	749584.29	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-000	2086966.71	749584.29	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-000	2086966.71	749584.29	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-000	2086966.71	749584.29	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-000	2086966.71	749584.29	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-000	2086966.71	749584.29	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-000	2086966.71	749584.29	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-000	2086966.71	749584.29	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-000	2086966.71	749584.29	subsurface soil	6.5-8.5'	VOCs	8260B
		CV41-000	2086966.71	749584.29	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-000	2086966.71	749584.29	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-000	2086966.71	749584.29	subsurface soil	8.5-10.5'	Metals	6010A
		CV41-000	2086966.71	749584.29	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-000	2086966.71	749584.29	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-000	2086966.71	749584.29	subsurface soil	8.5-10.5'	PCBs	8082
		CV41-001	2086994.24	749570.86	surface soil	0-0.5'	Radionuclides	HPGe
		CV41-001	2086994.24	749570.86	surface soil	0-0.5'	Metals	6010A
		CV41-001	2086994.24	749570.86	surface soil	0-0.5'	SVOCs	8270C

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-001	2086994.24	749570.86	surface soil	0-0.5'	PCBs	8082
		CV41-001	2086994.24	749570.86	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CV41-001	2086994.24	749570.86	subsurface soil	0.5'-2.5'	Metals	6010A
		CV41-001	2086994.24	749570.86	subsurface soil	0.5'-2.5'	SVOCs	8270C
		CV41-001	2086994.24	749570.86	subsurface soil	0.5'-2.5'	VOCs	8260B
		CV41-001	2086994.24	749570.86	subsurface soil	0.5'-2.5'	PCBs	8082
		CV41-001	2086994.24	749570.86	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV41-001	2086994.24	749570.86	subsurface soil	2.5-4.5'	Metals	6010A
		CV41-001	2086994.24	749570.86	subsurface soil	2.5-4.5'	SVOCs	8270C
		CV41-001	2086994.24	749570.86	subsurface soil	2.5-4.5'	VOCs	8260B
		CV41-001	2086994.24	749570.86	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-001	2086994.24	749570.86	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-001	2086994.24	749570.86	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-001	2086994.24	749570.86	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-001	2086994.24	749570.86	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-001	2086994.24	749570.86	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-001	2086994.24	749570.86	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-001	2086994.24	749570.86	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-001	2086994.24	749570.86	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-001	2086994.24	749570.86	subsurface soil	6.5-8.5'	VOCs	8260B
		CV41-001	2086994.24	749570.86	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-001	2086994.24	749570.86	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-001	2086994.24	749570.86	subsurface soil	8.5-10.5'	Metals	6010A
		CV41-001	2086994.24	749570.86	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-001	2086994.24	749570.86	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-001	2086994.24	749570.86	subsurface soil	8.5-10.5'	PCBs	8082

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-002	2087015.06	749599.73	surface soil	0-0.5'	Radionuclides	HPGe
		CV41-002	2087015.06	749599.73	surface soil	0-0.5'	Metals	6010A
		CV41-002	2087015.06	749599.73	surface soil	0-0.5'	SVOCs	8270C
		CV41-002	2087015.06	749599.73	surface soil	0-0.5'	PCBs	8082
		CV41-002	2087015.06	749599.73	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CV41-002	2087015.06	749599.73	subsurface soil	0.5'-2.5'	Metals	6010A
		CV41-002	2087015.06	749599.73	subsurface soil	0.5'-2.5'	SVOCs	8270C
		CV41-002	2087015.06	749599.73	subsurface soil	0.5'-2.5'	VOCs	8260B
		CV41-002	2087015.06	749599.73	subsurface soil	0.5'-2.5'	PCBs	8082
		CV41-002	2087015.06	749599.73	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV41-002	2087015.06	749599.73	subsurface soil	2.5-4.5'	Metals	6010A
		CV41-002	2087015.06	749599.73	subsurface soil	2.5-4.5'	SVOCs	8270C
		CV41-002	2087015.06	749599.73	subsurface soil	2.5-4.5'	VOCs	8260B
		CV41-002	2087015.06	749599.73	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-002	2087015.06	749599.73	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-002	2087015.06	749599.73	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-002	2087015.06	749599.73	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-002	2087015.06	749599.73	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-002	2087015.06	749599.73	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-002	2087015.06	749599.73	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-002	2087015.06	749599.73	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-002	2087015.06	749599.73	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-002	2087015.06	749599.73	subsurface soil	6.5-8.5'	VOCs	8260B
		CV41-002	2087015.06	749599.73	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-002	2087015.06	749599.73	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-002	2087015.06	749599.73	subsurface soil	8.5-10.5'	Metals	6010A

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Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-002	2087015.06	749599.73	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-002	2087015.06	749599.73	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-002	2087015.06	749599.73	subsurface soil	8.5-10.5'	PCBs	8082
		CV41-003	2087050.64	749597.05	surface soil	0-0.5'	Radionuclides	HPGe
		CV41-003	2087050.64	749597.05	surface soil	0-0.5'	Metals	6010A
		CV41-003	2087050.64	749597.05	surface soil	0-0.5'	SVOCs	8270C
		CV41-003	2087050.64	749597.05	surface soil	0-0.5'	PCBs	8082
		CV41-003	2087050.64	749597.05	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CV41-003	2087050.64	749597.05	subsurface soil	0.5'-2.5'	Metals	6010A
		CV41-003	2087050.64	749597.05	subsurface soil	0.5'-2.5'	SVOCs	8270C
		CV41-003	2087050.64	749597.05	subsurface soil	0.5'-2.5'	VOCs	8260B
		CV41-003	2087050.64	749597.05	subsurface soil	0.5'-2.5'	PCBs	8082
		CV41-003	2087050.64	749597.05	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV41-003	2087050.64	749597.05	subsurface soil	2.5-4.5'	Metals	6010A
		CV41-003	2087050.64	749597.05	subsurface soil	2.5-4.5'	SVOCs	8270C
		CV41-003	2087050.64	749597.05	subsurface soil	2.5-4.5'	VOCs	8260B
		CV41-003	2087050.64	749597.05	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-003	2087050.64	749597.05	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-003	2087050.64	749597.05	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-003	2087050.64	749597.05	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-003	2087050.64	749597.05	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-003	2087050.64	749597.05	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-003	2087050.64	749597.05	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-003	2087050.64	749597.05	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-003	2087050.64	749597.05	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-003	2087050.64	749597.05	subsurface soil	6.5-8.5'	VOCs	8260B

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-003	2087050.64	749597.05	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-003	2087050.64	749597.05	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-003	2087050.64	749597.05	subsurface soil	8.5-10.5'	Metals	6010A
		CV41-003	2087050.64	749597.05	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-003	2087050.64	749597.05	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-003	2087050.64	749597.05	subsurface soil	8.5-10.5'	PCBs	8082
		CV41-004	2087073.47	749619.88	surface soil	0-0.5'	Radionuclides	HPGe
		CV41-004	2087073.47	749619.88	surface soil	0-0.5'	Metals	6010A
		CV41-004	2087073.47	749619.88	surface soil	0-0.5'	SVOCs	8270C
		CV41-004	2087073.47	749619.88	surface soil	0-0.5'	PCBs	8082
		CV41-004	2087073.47	749619.88	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV41-004	2087073.47	749619.88	subsurface soil	2.5-4.5'	Metals	6010A
		CV41-004	2087073.47	749619.88	subsurface soil	2.5-4.5'	SVOCs	8270C
		CV41-004	2087073.47	749619.88	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-004	2087073.47	749619.88	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-004	2087073.47	749619.88	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-004	2087073.47	749619.88	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-004	2087073.47	749619.88	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-004	2087073.47	749619.88	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-004	2087073.47	749619.88	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-004	2087073.47	749619.88	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-004	2087073.47	749619.88	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-004	2087073.47	749619.88	subsurface soil	6.5-8.5'	VOCs	8260B
		CV41-004	2087073.47	749619.88	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-004	2087073.47	749619.88	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-004	2087073.47	749619.88	subsurface soil	8.5-10.5'	Metals	6010A

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-004	2087073.47	749619.88	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-004	2087073.47	749619.88	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-004	2087073.47	749619.88	subsurface soil	8.5-10.5'	PCBs	8082
		CV41-005	2087086.22	749593.02	surface soil	0-0.5'	Radionuclides	HPGe
		CV41-005	2087086.22	749593.02	surface soil	0-0.5'	Metals	6010A
		CV41-005	2087086.22	749593.02	surface soil	0-0.5'	SVOCs	8270C
		CV41-005	2087086.22	749593.02	surface soil	0-0.5'	PCBs	8082
		CV41-005	2087086.22	749593.02	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV41-005	2087086.22	749593.02	subsurface soil	2.5-4.5'	Metals	6010A
		CV41-005	2087086.22	749593.02	subsurface soil	2.5-4.5'	SVOCs	8270C
		CV41-005	2087086.22	749593.02	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-005	2087086.22	749593.02	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-005	2087086.22	749593.02	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-005	2087086.22	749593.02	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-005	2087086.22	749593.02	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-005	2087086.22	749593.02	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-005	2087086.22	749593.02	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-005	2087086.22	749593.02	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-005	2087086.22	749593.02	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-005	2087086.22	749593.02	subsurface soil	6.5-8.5'	VOCs	8260B
		CV41-005	2087086.22	749593.02	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-005	2087086.22	749593.02	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-005	2087086.22	749593.02	subsurface soil	8.5-10.5'	Metals	6010A
		CV41-005	2087086.22	749593.02	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-005	2087086.22	749593.02	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-005	2087086.22	749593.02	subsurface soil	8.5-10.5'	PCBs	8082

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV41-006	2087106.37	749621.22	surface soil	0-0.5'	Radionuclides	HPGe
		CV41-006	2087106.37	749621.22	surface soil	0-0.5'	Metals	6010A
		CV41-006	2087106.37	749621.22	surface soil	0-0.5'	SVOCs	8270C
		CV41-006	2087106.37	749621.22	surface soil	0-0.5'	PCBs	8082
		CV41-006	2087106.37	749621.22	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV41-006	2087106.37	749621.22	subsurface soil	2.5-4.5'	Metals	6010A
		CV41-006	2087106.37	749621.22	subsurface soil	2.5-4.5'	SVOCs	8270C
		CV41-006	2087106.37	749621.22	subsurface soil	2.5-4.5'	PCBs	8082
		CV41-006	2087106.37	749621.22	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV41-006	2087106.37	749621.22	subsurface soil	4.5-6.5'	Metals	6010A
		CV41-006	2087106.37	749621.22	subsurface soil	4.5-6.5'	SVOCs	8270C
		CV41-006	2087106.37	749621.22	subsurface soil	4.5-6.5'	VOCs	8260B
		CV41-006	2087106.37	749621.22	subsurface soil	4.5-6.5'	PCBs	8082
		CV41-006	2087106.37	749621.22	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV41-006	2087106.37	749621.22	subsurface soil	6.5-8.5'	Metals	6010A
		CV41-006	2087106.37	749621.22	subsurface soil	6.5-8.5'	SVOCs	8270C
		CV41-006	2087106.37	749621.22	subsurface soil	6.5-8.5'	VOCs	8260B
		CV41-006	2087106.37	749621.22	subsurface soil	6.5-8.5'	PCBs	8082
		CV41-006	2087106.37	749621.22	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV41-006	2087106.37	749621.22	subsurface soil	8.5-10.5'	Metals	6010A
		CV41-006	2087106.37	749621.22	subsurface soil	8.5-10.5'	SVOCs	8270C
		CV41-006	2087106.37	749621.22	subsurface soil	8.5-10.5'	VOCs	8260B
		CV41-006	2087106.37	749621.22	subsurface soil	8.5-10.5'	PCBs	8082
		CW41-000	2087142.62	749618.53	surface soil	0-0.5'	Radionuclides	HPGe
		CW41-000	2087142.62	749618.53	surface soil	0-0.5'	Metals	6010A
		CW41-000	2087142.62	749618.53	surface soil	0-0.5'	SVOCs	8270C

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW41-000	2087142.62	749618.53	surface soil	0-0.5'	PCBs	8082
		CW41-000	2087142.62	749618.53	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW41-000	2087142.62	749618.53	subsurface soil	2.5-4.5'	Metals	6010A
		CW41-000	2087142.62	749618.53	subsurface soil	2.5-4.5'	SVOCs	8270C
		CW41-000	2087142.62	749618.53	subsurface soil	2.5-4.5'	PCBs	8082
		CW41-000	2087142.62	749618.53	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW41-000	2087142.62	749618.53	subsurface soil	4.5-6.5'	Metals	6010A
		CW41-000	2087142.62	749618.53	subsurface soil	4.5-6.5'	SVOCs	8270C
		CW41-000	2087142.62	749618.53	subsurface soil	4.5-6.5'	VOCs	8260B
		CW41-000	2087142.62	749618.53	subsurface soil	4.5-6.5'	PCBs	8082
		CW41-000	2087142.62	749618.53	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW41-000	2087142.62	749618.53	subsurface soil	6.5-8.5'	Metals	6010A
		CW41-000	2087142.62	749618.53	subsurface soil	6.5-8.5'	SVOCs	8270C
		CW41-000	2087142.62	749618.53	subsurface soil	6.5-8.5'	VOCs	8260B
		CW41-000	2087142.62	749618.53	subsurface soil	6.5-8.5'	PCBs	8082
		CW41-000	2087142.62	749618.53	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW41-000	2087142.62	749618.53	subsurface soil	8.5-10.5'	Metals	6010A
		CW41-000	2087142.62	749618.53	subsurface soil	8.5-10.5'	SVOCs	8270C
		CW41-000	2087142.62	749618.53	subsurface soil	8.5-10.5'	VOCs	8260B
		CW41-000	2087142.62	749618.53	subsurface soil	8.5-10.5'	PCBs	8082
		CW41-001	2087163.44	749648.07	surface soil	0-0.5'	Radionuclides	HPGe
		CW41-001	2087163.44	749648.07	surface soil	0-0.5'	Metals	6010A
		CW41-001	2087163.44	749648.07	surface soil	0-0.5'	SVOCs	8270C
		CW41-001	2087163.44	749648.07	surface soil	0-0.5'	PCBs	8082
		CW41-001	2087163.44	749648.07	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW41-001	2087163.44	749648.07	subsurface soil	2.5-4.5'	Metals	6010A

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW41-001	2087163.44	749648.07	subsurface soil	2.5-4.5'	SVOCs	8270C
		CW41-001	2087163.44	749648.07	subsurface soil	2.5-4.5'	PCBs	8082
		CW41-001	2087163.44	749648.07	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW41-001	2087163.44	749648.07	subsurface soil	4.5-6.5'	Metals	6010A
		CW41-001	2087163.44	749648.07	subsurface soil	4.5-6.5'	SVOCs	8270C
		CW41-001	2087163.44	749648.07	subsurface soil	4.5-6.5'	VOCs	8260B
		CW41-001	2087163.44	749648.07	subsurface soil	4.5-6.5'	PCBs	8082
		CW41-001	2087163.44	749648.07	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW41-001	2087163.44	749648.07	subsurface soil	6.5-8.5'	Metals	6010A
		CW41-001	2087163.44	749648.07	subsurface soil	6.5-8.5'	SVOCs	8270C
		CW41-001	2087163.44	749648.07	subsurface soil	6.5-8.5'	VOCs	8260B
		CW41-001	2087163.44	749648.07	subsurface soil	6.5-8.5'	PCBs	8082
		CW41-001	2087163.44	749648.07	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW41-001	2087163.44	749648.07	subsurface soil	8.5-10.5'	Metals	6010A
		CW41-001	2087163.44	749648.07	subsurface soil	8.5-10.5'	SVOCs	8270C
		CW41-001	2087163.44	749648.07	subsurface soil	8.5-10.5'	VOCs	8260B
		CW41-001	2087163.44	749648.07	subsurface soil	8.5-10.5'	PCBs	8082
		CW41-002	2087178.88	749622.56	surface soil	0-0.5'	Radionuclides	HPGe
		CW41-002	2087178.88	749622.56	surface soil	0-0.5'	Metals	6010A
		CW41-002	2087178.88	749622.56	surface soil	0-0.5'	SVOCs	8270C
		CW41-002	2087178.88	749622.56	surface soil	0-0.5'	PCBs	8082
		CW41-002	2087178.88	749622.56	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW41-002	2087178.88	749622.56	subsurface soil	2.5-4.5'	Metals	6010A
		CW41-002	2087178.88	749622.56	subsurface soil	2.5-4.5'	SVOCs	8270C
		CW41-002	2087178.88	749622.56	subsurface soil	2.5-4.5'	PCBs	8082
		CW41-002	2087178.88	749622.56	subsurface soil	4.5-6.5'	Radionuclides	HPGe

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW41-002	2087178.88	749622.56	subsurface soil	4.5-6.5'	Metals	6010A
		CW41-002	2087178.88	749622.56	subsurface soil	4.5-6.5'	SVOCs	8270C
		CW41-002	2087178.88	749622.56	subsurface soil	4.5-6.5'	VOCs	8260B
		CW41-002	2087178.88	749622.56	subsurface soil	4.5-6.5'	PCBs	8082
		CW41-002	2087178.88	749622.56	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW41-002	2087178.88	749622.56	subsurface soil	6.5-8.5'	Metals	6010A
		CW41-002	2087178.88	749622.56	subsurface soil	6.5-8.5'	SVOCs	8270C
		CW41-002	2087178.88	749622.56	subsurface soil	6.5-8.5'	VOCs	8260B
		CW41-002	2087178.88	749622.56	subsurface soil	6.5-8.5'	PCBs	8082
		CW41-002	2087178.88	749622.56	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW41-002	2087178.88	749622.56	subsurface soil	8.5-10.5'	Metals	6010A
		CW41-002	2087178.88	749622.56	subsurface soil	8.5-10.5'	SVOCs	8270C
		CW41-002	2087178.88	749622.56	subsurface soil	8.5-10.5'	VOCs	8260B
		CW41-002	2087178.88	749622.56	subsurface soil	8.5-10.5'	PCBs	8082
	PAC NE-1413 – Trench T-13	CV40-000	2087078.06	749463.45	surface soil	0-0.5'	Radionuclides	HPGe
		CV40-000	2087078.06	749463.45	surface soil	0-0.5'	Metals	6010A
		CV40-000	2087078.06	749463.45	surface soil	0-0.5'	PCBs	8082
		CV40-000	2087078.06	749463.45	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CV40-000	2087078.06	749463.45	subsurface soil	0.5'-2.5'	Metals	6010A
		CV40-000	2087078.06	749463.45	subsurface soil	0.5'-2.5'	VOCs	8260B
		CV40-000	2087078.06	749463.45	subsurface soil	0.5'-2.5'	PCBs	8082
		CV40-000	2087078.06	749463.45	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV40-000	2087078.06	749463.45	subsurface soil	2.5-4.5'	Metals	6010A
		CV40-000	2087078.06	749463.45	subsurface soil	2.5-4.5'	VOCs	8260B
		CV40-000	2087078.06	749463.45	subsurface soil	2.5-4.5'	PCBs	8082
		CV40-000	2087078.06	749463.45	subsurface soil	4.5-6.5'	Radionuclides	HPGe

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV40-000	2087078.06	749463.45	subsurface soil	4.5-6.5'	Metals	6010A
		CV40-000	2087078.06	749463.45	subsurface soil	4.5-6.5'	VOCs	8260B
		CV40-000	2087078.06	749463.45	subsurface soil	4.5-6.5'	PCBs	8082
		CV40-000	2087078.06	749463.45	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV40-000	2087078.06	749463.45	subsurface soil	6.5-8.5'	Metals	6010A
		CV40-000	2087078.06	749463.45	subsurface soil	6.5-8.5'	VOCs	8260B
		CV40-000	2087078.06	749463.45	subsurface soil	6.5-8.5'	PCBs	8082
		CV40-000	2087078.06	749463.45	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV40-000	2087078.06	749463.45	subsurface soil	8.5-10.5'	Metals	6010A
		CV40-000	2087078.06	749463.45	subsurface soil	8.5-10.5'	VOCs	8260B
		CV40-000	2087078.06	749463.45	subsurface soil	8.5-10.5'	PCBs	8082
		CV40-001	2087106.49	749480.09	surface soil	0-0.5'	Radionuclides	HPGe
		CV40-001	2087106.49	749480.09	surface soil	0-0.5'	Metals	6010A
		CV40-001	2087106.49	749480.09	surface soil	0-0.5'	PCBs	8082
		CV40-001	2087106.49	749480.09	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CV40-001	2087106.49	749480.09	subsurface soil	0.5'-2.5'	Metals	6010A
		CV40-001	2087106.49	749480.09	subsurface soil	0.5'-2.5'	VOCs	8260B
		CV40-001	2087106.49	749480.09	subsurface soil	0.5'-2.5'	PCBs	8082
		CV40-001	2087106.49	749480.09	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV40-001	2087106.49	749480.09	subsurface soil	2.5-4.5'	Metals	6010A
		CV40-001	2087106.49	749480.09	subsurface soil	2.5-4.5'	VOCs	8260B
		CV40-001	2087106.49	749480.09	subsurface soil	2.5-4.5'	PCBs	8082
		CV40-001	2087106.49	749480.09	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV40-001	2087106.49	749480.09	subsurface soil	4.5-6.5'	Metals	6010A
		CV40-001	2087106.49	749480.09	subsurface soil	4.5-6.5'	VOCs	8260B
		CV40-001	2087106.49	749480.09	subsurface soil	4.5-6.5'	PCBs	8082

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV40-001	2087106.49	749480.09	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV40-001	2087106.49	749480.09	subsurface soil	6.5-8.5'	Metals	6010A
		CV40-001	2087106.49	749480.09	subsurface soil	6.5-8.5'	VOCs	8260B
		CV40-001	2087106.49	749480.09	subsurface soil	6.5-8.5'	PCBs	8082
		CV40-001	2087106.49	749480.09	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV40-001	2087106.49	749480.09	subsurface soil	8.5-10.5'	Metals	6010A
		CV40-001	2087106.49	749480.09	subsurface soil	8.5-10.5'	VOCs	8260B
		CV40-001	2087106.49	749480.09	subsurface soil	8.5-10.5'	PCBs	8082
		CV40-002	2087113.43	749452.35	surface soil	0-0.5'	Radionuclides	HPGe
		CV40-002	2087113.43	749452.35	surface soil	0-0.5'	Metals	6010A
		CV40-002	2087113.43	749452.35	surface soil	0-0.5'	PCBs	8082
		CV40-002	2087113.43	749452.35	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CV40-002	2087113.43	749452.35	subsurface soil	0.5'-2.5'	Metals	6010A
		CV40-002	2087113.43	749452.35	subsurface soil	0.5'-2.5'	VOCs	8260B
		CV40-002	2087113.43	749452.35	subsurface soil	0.5'-2.5'	PCBs	8082
		CV40-002	2087113.43	749452.35	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CV40-002	2087113.43	749452.35	subsurface soil	2.5-4.5'	Metals	6010A
		CV40-002	2087113.43	749452.35	subsurface soil	2.5-4.5'	VOCs	8260B
		CV40-002	2087113.43	749452.35	subsurface soil	2.5-4.5'	PCBs	8082
		CV40-002	2087113.43	749452.35	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CV40-002	2087113.43	749452.35	subsurface soil	4.5-6.5'	Metals	6010A
		CV40-002	2087113.43	749452.35	subsurface soil	4.5-6.5'	VOCs	8260B
		CV40-002	2087113.43	749452.35	subsurface soil	4.5-6.5'	PCBs	8082
		CV40-002	2087113.43	749452.35	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CV40-002	2087113.43	749452.35	subsurface soil	6.5-8.5'	Metals	6010A
		CV40-002	2087113.43	749452.35	subsurface soil	6.5-8.5'	VOCs	8260B

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CV40-002	2087113.43	749452.35	subsurface soil	6.5-8.5'	PCBs	8082
		CV40-002	2087113.43	749452.35	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CV40-002	2087113.43	749452.35	subsurface soil	8.5-10.5'	Metals	6010A
		CV40-002	2087113.43	749452.35	subsurface soil	8.5-10.5'	VOCs	8260B
		CV40-002	2087113.43	749452.35	subsurface soil	8.5-10.5'	PCBs	8082
		CW40-000	2087139.09	749477.67	surface soil	0-0.5'	Radionuclides	HPGe
		CW40-000	2087139.09	749477.67	surface soil	0-0.5'	Metals	6010A
		CW40-000	2087139.09	749477.67	surface soil	0-0.5'	PCBs	8082
		CW40-000	2087139.09	749477.67	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CW40-000	2087139.09	749477.67	subsurface soil	0.5'-2.5'	Metals	6010A
		CW40-000	2087139.09	749477.67	subsurface soil	0.5'-2.5'	VOCs	8260B
		CW40-000	2087139.09	749477.67	subsurface soil	0.5'-2.5'	PCBs	8082
		CW40-000	2087139.09	749477.67	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW40-000	2087139.09	749477.67	subsurface soil	2.5-4.5'	Metals	6010A
		CW40-000	2087139.09	749477.67	subsurface soil	2.5-4.5'	VOCs	8260B
		CW40-000	2087139.09	749477.67	subsurface soil	2.5-4.5'	PCBs	8082
		CW40-000	2087139.09	749477.67	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW40-000	2087139.09	749477.67	subsurface soil	4.5-6.5'	Metals	6010A
		CW40-000	2087139.09	749477.67	subsurface soil	4.5-6.5'	VOCs	8260B
		CW40-000	2087139.09	749477.67	subsurface soil	4.5-6.5'	PCBs	8082
		CW40-000	2087139.09	749477.67	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW40-000	2087139.09	749477.67	subsurface soil	6.5-8.5'	Metals	6010A
		CW40-000	2087139.09	749477.67	subsurface soil	6.5-8.5'	VOCs	8260B
		CW40-000	2087139.09	749477.67	subsurface soil	6.5-8.5'	PCBs	8082
		CW40-000	2087139.09	749477.67	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW40-000	2087139.09	749477.67	subsurface soil	8.5-10.5'	Metals	6010A

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IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW40-000	2087139.09	749477.67	subsurface soil	8.5-10.5'	VOCs	8260B
		CW40-000	2087139.09	749477.67	subsurface soil	8.5-10.5'	PCBs	8082
		CW40-001	2087145.33	749448.88	surface soil	0-0.5'	Radionuclides	HPGe
		CW40-001	2087145.33	749448.88	surface soil	0-0.5'	Metals	6010A
		CW40-001	2087145.33	749448.88	surface soil	0-0.5'	PCBs	8082
		CW40-001	2087145.33	749448.88	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CW40-001	2087145.33	749448.88	subsurface soil	0.5'-2.5'	Metals	6010A
		CW40-001	2087145.33	749448.88	subsurface soil	0.5'-2.5'	VOCs	8260B
		CW40-001	2087145.33	749448.88	subsurface soil	0.5'-2.5'	PCBs	8082
		CW40-001	2087145.33	749448.88	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW40-001	2087145.33	749448.88	subsurface soil	2.5-4.5'	Metals	6010A
		CW40-001	2087145.33	749448.88	subsurface soil	2.5-4.5'	VOCs	8260B
		CW40-001	2087145.33	749448.88	subsurface soil	2.5-4.5'	PCBs	8082
		CW40-001	2087145.33	749448.88	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW40-001	2087145.33	749448.88	subsurface soil	4.5-6.5'	Metals	6010A
		CW40-001	2087145.33	749448.88	subsurface soil	4.5-6.5'	VOCs	8260B
		CW40-001	2087145.33	749448.88	subsurface soil	4.5-6.5'	PCBs	8082
		CW40-001	2087145.33	749448.88	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW40-001	2087145.33	749448.88	subsurface soil	6.5-8.5'	Metals	6010A
		CW40-001	2087145.33	749448.88	subsurface soil	6.5-8.5'	VOCs	8260B
		CW40-001	2087145.33	749448.88	subsurface soil	6.5-8.5'	PCBs	8082
		CW40-001	2087145.33	749448.88	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW40-001	2087145.33	749448.88	subsurface soil	8.5-10.5'	Metals	6010A
		CW40-001	2087145.33	749448.88	subsurface soil	8.5-10.5'	VOCs	8260B
		CW40-001	2087145.33	749448.88	subsurface soil	8.5-10.5'	PCBs	8082
		CW40-002	2087173.08	749468.30	surface soil	0-0.5'	Radionuclides	HPGe

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IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW40-002	2087173.08	749468.30	surface soil	0-0.5'	Metals	6010A
		CW40-002	2087173.08	749468.30	surface soil	0-0.5'	PCBs	8082
		CW40-002	2087173.08	749468.30	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CW40-002	2087173.08	749468.30	subsurface soil	0.5'-2.5'	Metals	6010A
		CW40-002	2087173.08	749468.30	subsurface soil	0.5'-2.5'	VOCs	8260B
		CW40-002	2087173.08	749468.30	subsurface soil	0.5'-2.5'	PCBs	8082
		CW40-002	2087173.08	749468.30	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW40-002	2087173.08	749468.30	subsurface soil	2.5-4.5'	Metals	6010A
		CW40-002	2087173.08	749468.30	subsurface soil	2.5-4.5'	VOCs	8260B
		CW40-002	2087173.08	749468.30	subsurface soil	2.5-4.5'	PCBs	8082
		CW40-002	2087173.08	749468.30	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW40-002	2087173.08	749468.30	subsurface soil	4.5-6.5'	Metals	6010A
		CW40-002	2087173.08	749468.30	subsurface soil	4.5-6.5'	VOCs	8260B
		CW40-002	2087173.08	749468.30	subsurface soil	4.5-6.5'	PCBs	8082
		CW40-002	2087173.08	749468.30	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW40-002	2087173.08	749468.30	subsurface soil	6.5-8.5'	metals	6010A
		CW40-002	2087173.08	749468.30	subsurface soil	6.5-8.5'	VOCs	8260B
		CW40-002	2087173.08	749468.30	subsurface soil	6.5-8.5'	PCBs	8082
		CW40-002	2087173.08	749468.30	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW40-002	2087173.08	749468.30	subsurface soil	8.5-10.5'	Metals	6010A
		CW40-002	2087173.08	749468.30	subsurface soil	8.5-10.5'	VOCs	8260B
		CW40-002	2087173.08	749468.30	subsurface soil	8.5-10.5'	PCBs	8082
		CW40-003	2087207.75	749457.21	surface soil	0-0.5'	Radionuclides	HPGe
		CW40-003	2087207.75	749457.21	surface soil	0-0.5'	Metals	6010A
		CW40-003	2087207.75	749457.21	surface soil	0-0.5'	PCBs	8082
		CW40-003	2087207.75	749457.21	subsurface soil	0.5'-2.5'	Radionuclides	HPGe

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW40-003	2087207.75	749457.21	subsurface soil	0.5'-2.5'	Metals	6010A
		CW40-003	2087207.75	749457.21	subsurface soil	0.5'-2.5'	VOCs	8260B
		CW40-003	2087207.75	749457.21	subsurface soil	0.5'-2.5'	PCBs	8082
		CW40-003	2087207.75	749457.21	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW40-003	2087207.75	749457.21	subsurface soil	2.5-4.5'	Metals	6010A
		CW40-003	2087207.75	749457.21	subsurface soil	2.5-4.5'	VOCs	8260B
		CW40-003	2087207.75	749457.21	subsurface soil	2.5-4.5'	PCBs	8082
		CW40-003	2087207.75	749457.21	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW40-003	2087207.75	749457.21	subsurface soil	4.5-6.5'	Metals	6010A
		CW40-003	2087207.75	749457.21	subsurface soil	4.5-6.5'	VOCs	8260B
		CW40-003	2087207.75	749457.21	subsurface soil	4.5-6.5'	PCBs	8082
		CW40-003	2087207.75	749457.21	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW40-003	2087207.75	749457.21	subsurface soil	6.5-8.5'	Metals	6010A
		CW40-003	2087207.75	749457.21	subsurface soil	6.5-8.5'	VOCs	8260B
		CW40-003	2087207.75	749457.21	subsurface soil	6.5-8.5'	PCBs	8082
		CW40-003	2087207.75	749457.21	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW40-003	2087207.75	749457.21	subsurface soil	8.5-10.5'	Metals	6010A
		CW40-003	2087207.75	749457.21	subsurface soil	8.5-10.5'	VOCs	8260B
		CW40-003	2087207.75	749457.21	subsurface soil	8.5-10.5'	PCBs	8082
		CW40-004	2087204.29	749479.75	surface soil	0-0.5'	Radionuclides	HPGe
		CW40-004	2087204.29	749479.75	surface soil	0-0.5'	Metals	6010A
		CW40-004	2087204.29	749479.75	surface soil	0-0.5'	PCBs	8082
		CW40-004	2087204.29	749479.75	subsurface soil	0.5'-2.5'	Radionuclides	HPGe
		CW40-004	2087204.29	749479.75	subsurface soil	0.5'-2.5'	Metals	6010A
		CW40-004	2087204.29	749479.75	subsurface soil	0.5'-2.5'	VOCs	8260B
		CW40-004	2087204.29	749479.75	subsurface soil	0.5'-2.5'	PCBs	8082

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
		CW40-004	2087204.29	749479.75	subsurface soil	2.5-4.5'	Radionuclides	HPGe
		CW40-004	2087204.29	749479.75	subsurface soil	2.5-4.5'	Metals	6010A
		CW40-004	2087204.29	749479.75	subsurface soil	2.5-4.5'	VOCs	8260B
		CW40-004	2087204.29	749479.75	subsurface soil	2.5-4.5'	PCBs	8082
		CW40-004	2087204.29	749479.75	subsurface soil	4.5-6.5'	Radionuclides	HPGe
		CW40-004	2087204.29	749479.75	subsurface soil	4.5-6.5'	Metals	6010A
		CW40-004	2087204.29	749479.75	subsurface soil	4.5-6.5'	VOCs	8260B
		CW40-004	2087204.29	749479.75	subsurface soil	4.5-6.5'	PCBs	8082
		CW40-004	2087204.29	749479.75	subsurface soil	6.5-8.5'	Radionuclides	HPGe
		CW40-004	2087204.29	749479.75	subsurface soil	6.5-8.5'	Metals	6010A
		CW40-004	2087204.29	749479.75	subsurface soil	6.5-8.5'	VOCs	8260B
		CW40-004	2087204.29	749479.75	subsurface soil	6.5-8.5'	PCBs	8082
		CW40-004	2087204.29	749479.75	subsurface soil	8.5-10.5'	Radionuclides	HPGe
		CW40-004	2087204.29	749479.75	subsurface soil	8.5-10.5'	Metals	6010A
	PAC NE-1407 – OU 2 Treatment Facility	CV43-000	2087134.60	749980.95	surface soil	0-0.5'	Metals	6010A
		CV43-000	2087134.60	749980.95	subsurface soil	0-0.5'	VOCs	8260
		CV43-001	2087135.47	749967.93	surface soil	0-0.5'	Metals	6010A
		CV43-001	2087135.47	749967.93	subsurface soil	0-0.5'	VOCs	8260
		CW43-000	2087135.47	749967.93	surface soil	0-0.5'	Metals	6010A
		CW43-000	2087135.47	749967.93	subsurface soil	0-0.5'	VOCs	8260
		CW43-001	2087140.61	749975.88	surface soil	0-0.5'	Metals	6010A
		CW43-001	2087140.61	749975.88	subsurface soil	0-0.5'	VOCs	8260
		CW43-002	2087147.12	749969.73	surface soil	0-0.5'	Metals	6010A
		CW43-002	2087147.12	749969.73	subsurface soil	0-0.5'	VOCs	8260

Table 2 IHSS Group NE/NW Characterization Sampling Specifications

IHSS Group	IHSS/PAC/UBC Site	Location Code	Easting	Northing	Media	Depth Interval	Analyte	Laboratory Method
NW	IHSS 174a – Property Utilization and Disposal (PU&D) Yard and Drum Storage Area	BW52-000	2082020.64	751766.82	subsurface	TBD	Radionuclides	HPGe
							Metals	6010A
							VOCs	8260
							SVOCs	8270C
							Pesticides	8081A
							PCBs	8082

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-004	2087073.47	749619.88	Fluoranthene	0	0.5	620	93	NA	27200000	—	ug/kg
CV41-004	2087073.47	749619.88	Pyrene	0	0.5	640	44	NA	22100000	—	ug/kg
DB44-000	2088317.84	750231.30	Silver	0	0.5	0.16	0.069	NA	5110	—	mg/kg
DB44-000	2088317.84	750231.30	Antimony	0	0.5	0.84	0.44	NA	409	—	mg/kg
DC45-000	2088455.44	750459.28	Zinc	0	0.5	121	0.62	73.76	307000	—	mg/kg
DC45-000	2088455.44	750459.28	Silver	0	0.5	2	0.071	NA	5110	—	mg/kg
DC43-000	2088442.46	750152.87	Silver	0	0.5	0.09	0.07	NA	5110	—	mg/kg
DD44-000	2088472.83	750275.17	Antimony	0	0.5	0.51	0.45	NA	409	—	mg/kg
DH43-000	2089365.30	749991.19	Aroclor-1260	0	0.5	32	5	NA	12400	—	ug/kg
DC39-000	2088448.57	749186.75	Antimony	0	0.5	0.45	0.44	NA	409	—	mg/kg
DD43-000	2088554.95	750249.97	Antimony	0	0.5	0.64	0.45	NA	409	—	mg/kg
DD43-000	2088554.95	750249.97	Silver	0	0.5	1.1	0.07	NA	5110	—	mg/kg
DD43-000	2088554.95	750249.97	Zinc	0	0.5	101	0.62	73.76	307000	—	mg/kg
CW40-004	2087204.29	749479.75	Molybdenum	0	0.5	0.29	0.14	NA	5110	—	mg/kg
CW40-004	2087204.29	749479.75	Antimony	0	0.5	0.48	0.46	NA	409	—	mg/kg
CW41-001	2087163.44	749648.07	Silver	0	0.5	0.38	0.056	NA	5110	—	mg/kg
CW41-001	2087163.44	749648.07	Lithium	0	0.5	15.1	0.17	11.55	20400	—	mg/kg
CW41-002	2087178.88	749622.56	Tin	0	0.5	1.3	0.39	NA	613000	—	mg/kg
CW41-002	2087178.88	749622.56	Silver	0	0.5	0.081	0.055	NA	5110	—	mg/kg
CV43-000	2087134.60	749980.95	Chromium	0	0.5	31.1	0.054	16.99	268	—	mg/kg
CV43-000	2087134.60	749980.95	Silver	0	0.5	0.27	0.056	NA	5110	—	mg/kg
CV43-001	2087135.47	749967.93	Silver	0	0.5	0.7	0.055	NA	5110	—	mg/kg
CW43-000	2087145.35	749981.91	Silver	0	0.5	1.8	0.056	NA	5110	—	mg/kg
CW43-000	2087145.35	749981.91	Antimony	0	0.5	0.46	0.44	NA	409	—	mg/kg
CW43-000	2087145.35	749981.91	Chromium	0	0.5	23	0.054	16.99	268	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW43-001	2087140.61	749975.88	Chromium	0	0.5	23.4	0.053	16.99	268	—	mg/kg
CW43-001	2087140.61	749975.88	Antimony	0	0.5	0.48	0.43	NA	409	—	mg/kg
CW43-001	2087140.61	749975.88	Silver	0	0.5	1.6	0.055	NA	5110	—	mg/kg
CW43-002	2087147.12	749969.73	Antimony	0	0.5	0.46	0.42	NA	409	—	mg/kg
CW43-002	2087147.12	749969.73	Silver	0	0.5	0.4	0.054	NA	5110	—	mg/kg
CV40-002	2087119.05	749442.72	Lead	0	0.5	93.5	0.19	54.62	1000	25.6	mg/kg
CV40-002	2087119.05	749442.72	Aroclor-1260	0	0.5	100	4.9	NA	12400	—	ug/kg
CW40-001	2087145.33	749448.88	Strontium	0	0.5	170	0.0065	48.94	613000	—	mg/kg
CW40-002	2087173.08	749468.30	Strontium	0	0.5	362	0.0064	48.94	613000	—	mg/kg
CW40-003	2087207.75	749457.21	Strontium	0	0.5	136	0.0062	48.94	613000	—	mg/kg
CW40-004	2087204.29	749479.75	Strontium	0	0.5	169	0.0065	48.94	613000	—	mg/kg
DB44-000	2088317.84	750231.30	Aluminum	0	0.5	17000	1.9	16902.00	228000	—	mg/kg
DB44-000	2088317.84	750231.30	Lithium	0	0.5	13.6	0.25	11.55	20400	—	mg/kg
DB44-000	2088317.84	750231.30	Pyrene	0	0.5	46	43	NA	22100000	—	ug/kg
DB44-000	2088317.84	750231.30	Bis(2-Ethylhexyl)Phthalate	0	0.5	190	74	NA	1970000	—	ug/kg
DC43-000	2088442.46	750152.87	Bis(2-Ethylhexyl)Phthalate	0	0.5	470	76	NA	1970000	—	ug/kg
DC45-000	2088455.44	750459.28	Nickel	0	0.5	20.9	0.47	14.91	20400	—	mg/kg
DC45-000	2088455.44	750459.28	Chromium	0	0.5	21.6	0.38	16.99	268	—	mg/kg
DC45-000	2088455.44	750459.28	Copper	0	0.5	19	0.2	18.06	40900	—	mg/kg
DC45-000	2088455.44	750459.28	Strontium	0	0.5	60.9	0.016	48.94	613000	—	mg/kg
DC45-000	2088455.44	750459.28	Aluminum	0	0.5	27400	2	16902.00	228000	—	mg/kg
DC45-000	2088455.44	750459.28	Lithium	0	0.5	23.5	0.26	11.55	20400	—	mg/kg
DC45-000	2088455.44	750459.28	Iron	0	0.5	19800	1.7	18037.00	307000	—	mg/kg
DC45-000	2088455.44	750459.28	Aroclor-1254	0	0.5	47	6.5	NA	12400	371000.00	ug/kg
DC45-000	2088455.44	750459.28	Aroclor-1260	0	0.5	53	5.1	NA	12400	—	ug/kg
DC45-000	2088455.44	750459.28	Fluoranthene	0	0.5	190	90	NA	27200000	—	ug/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DC45-000	2088455.44	750459.28	Chrysene	0	0.5	86	57	NA	3490000	—	ug/kg
DC45-000	2088455.44	750459.28	Benzo(A)Anthracene	0	0.5	62	42	NA	34900	800000.00	ug/kg
DC45-000	2088455.44	750459.28	Pyrene	0	0.5	170	43	NA	22100000	—	ug/kg
DG41-000	2089312.89	749743.20	Pyrene	0	0.5	43	42	NA	22100000	—	ug/kg
DC43-000	2088442.46	750152.87	Strontium	0	0.5	63.4	0.016	48.94	613000	—	mg/kg
DC43-000	2088442.46	750152.87	Nickel	0	0.5	15.6	0.47	14.91	20400	—	mg/kg
DC43-000	2088442.46	750152.87	Aluminum	0	0.5	17900	1.9	16902.00	228000	—	mg/kg
DC43-000	2088442.46	750152.87	Lithium	0	0.5	14.8	0.26	11.55	20400	—	mg/kg
DC43-000	2088442.46	750152.87	Pyrene	0	0.5	60	44	NA	22100000	—	ug/kg
DD44-000	2088472.83	750275.17	Chromium	0	0.5	18.5	0.37	16.99	268	—	mg/kg
DD44-000	2088472.83	750275.17	Aluminum	0	0.5	21600	1.9	16902.00	228000	—	mg/kg
DD44-000	2088472.83	750275.17	Lithium	0	0.5	16.7	0.26	11.55	20400	—	mg/kg
DD44-000	2088472.83	750275.17	Pyrene	0	0.5	130	43	NA	22100000	—	ug/kg
DD44-000	2088472.83	750275.17	Chrysene	0	0.5	74	57	NA	3490000	—	ug/kg
DD44-000	2088472.83	750275.17	Bis(2-Ethylhexyl)Phthalate	0	0.5	330	74	NA	1970000	—	ug/kg
DD44-000	2088472.83	750275.17	Benzo(A)Anthracene	0	0.5	55	42	NA	34900	800000.00	ug/kg
DG41-000	2089312.89	749743.20	Manganese	0	0.5	380	0.044	365.08	3480	—	mg/kg
DG41-000	2089312.89	749743.20	Lithium	0	0.5	12.2	0.25	11.55	20400	—	mg/kg
DG41-000	2089312.89	749743.20	Aluminum	0	0.5	17000	1.9	16902.00	228000	—	mg/kg
DG41-000	2089312.89	749743.20	Silver	0	0.5	0.13	0.069	NA	5110	—	mg/kg
DH43-000	2089365.30	749991.19	Aluminum	0	0.5	17100	1.9	16902.00	228000	—	mg/kg
DH43-000	2089365.30	749991.19	Lithium	0	0.5	12.6	0.25	11.55	20400	—	mg/kg
DH43-000	2089365.30	749991.19	Aroclor-1254	0	0.5	190	6.3	NA	12400	371000.00	ug/kg
DC39-000	2088448.57	749186.75	Nickel	0	0.5	20.8	0.45	14.91	20400	—	mg/kg
DC39-000	2088448.57	749186.75	Aluminum	0	0.5	18000	1.9	16902.00	228000	—	mg/kg
DC39-000	2088448.57	749186.75	Lithium	0	0.5	23.3	0.25	11.55	20400	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DC39-000	2088448.57	749186.75	Barium	0	0.5	143	0.056	141.26	26400	—	mg/kg
DC39-000	2088448.57	749186.75	Strontium	0	0.5	113	0.016	48.94	613000	—	mg/kg
DC39-000	2088448.57	749186.75	Iron	0	0.5	20200	1.7	18037.00	307000	—	mg/kg
DC39-000	2088448.57	749186.75	Chromium	0	0.5	28.7	0.37	16.99	268	—	mg/kg
DD43-000	2088554.95	750249.97	Nickel	0	0.5	18.8	0.46	14.91	20400	—	mg/kg
DD43-000	2088554.95	750249.97	Lead	0	0.5	67.8	0.22	54.62	1000	25.6	mg/kg
DD43-000	2088554.95	750249.97	Lithium	0	0.5	25.1	0.26	11.55	20400	—	mg/kg
DD43-000	2088554.95	750249.97	Strontium	0	0.5	57.5	0.016	48.94	613000	—	mg/kg
DD43-000	2088554.95	750249.97	Aluminum	0	0.5	27400	1.9	16902.00	228000	—	mg/kg
DD43-000	2088554.95	750249.97	Barium	0	0.5	149	0.057	141.26	26400	—	mg/kg
DD43-000	2088554.95	750249.97	Chromium	0	0.5	21.7	0.38	16.99	268	—	mg/kg
DD43-000	2088554.95	750249.97	Copper	0	0.5	18.7	0.19	18.06	40900	—	mg/kg
DD43-000	2088554.95	750249.97	Aroclor-1260	0	0.5	16	5.4	NA	12400	—	ug/kg
DD43-000	2088554.95	750249.97	Aroclor-1254	0	0.5	74	6.8	NA	12400	371000.00	ug/kg
DD43-000	2088554.95	750249.97	Benzo(A)Anthracene	0	0.5	55	43	NA	34900	800000.00	ug/kg
DD43-000	2088554.95	750249.97	Bis(2-Ethylhexyl)Phthalate	0	0.5	390	76	NA	1970000	—	ug/kg
DD43-000	2088554.95	750249.97	Chrysene	0	0.5	61	59	NA	3490000	—	ug/kg
DD43-000	2088554.95	750249.97	Fluoranthene	0	0.5	150	93	NA	27200000	—	ug/kg
DD43-000	2088554.95	750249.97	Pyrene	0	0.5	130	44	NA	22100000	—	ug/kg
STEP OUT 1 - A	2087034.21	749626.36	Pyrene	0	0.5	87	59	NA	22100000	—	ug/kg
STEP OUT 1 - A	2087034.21	749626.36	Benzo(A)Anthracene	0	0.5	43	41	NA	34900	800000.00	ug/kg
STEP OUT 1 - A	2087034.21	749626.36	Chrysene	0	0.5	46	36	NA	3490000	—	ug/kg
STEP OUT 1 - A	2087034.21	749626.36	Fluoranthene	0	0.5	86	41	NA	27200000	—	ug/kg
STEP OUT 2 - A	2087079.97	749636.97	Fluoranthene	0	0.5	45	41	NA	27200000	—	ug/kg
DB41-000	2088280.51	749574.27	Aroclor-1254	0	0.5	11	6.3	NA	12400	371000.00	ug/kg
DB41-000	2088280.51	749574.27	Aroclor-1260	0	0.5	9.1	5	NA	12400	—	ug/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DG41-001	2089248.07	749648.40	Aroclor-1254	0	0.5	8.2	7.8	NA	12400	371000.00	ug/kg
DB39-001	2088323.82	749287.21	Aroclor-1254	0	0.5	17	6.3	NA	12400	371000.00	ug/kg
DB39-001	2088323.82	749287.21	Pyrene	0	0.5	110	41	NA	22100000	—	ug/kg
DB39-001	2088323.82	749287.21	Chrysene	0	0.5	67	55	NA	3490000	—	ug/kg
DB39-001	2088323.82	749287.21	Fluoranthene	0	0.5	140	86	NA	27200000	—	ug/kg
DB39-001	2088323.82	749287.21	Benzo(A)Anthracene	0	0.5	56	40	NA	34900	800000.00	ug/kg
DB41-000	2088280.51	749574.27	Fluoranthene	0	0.5	99	87	NA	27200000	—	ug/kg
DB41-000	2088280.51	749574.27	Pyrene	0	0.5	100	42	NA	22100000	—	ug/kg
DB43-000	2088219.15	750163.83	Pyrene	0	0.5	87	42	NA	22100000	—	ug/kg
DB43-001	2088226.91	749963.51	Aroclor-1254	0	0.5	39	6.4	NA	12400	371000.00	ug/kg
DB43-001	2088226.91	749963.51	Chrysene	0	0.5	84	57	NA	3490000	—	ug/kg
DB43-001	2088226.91	749963.51	Fluoranthene	0	0.5	160	90	NA	27200000	—	ug/kg
DB43-001	2088226.91	749963.51	Pyrene	0	0.5	170	43	NA	22100000	—	ug/kg
DB43-001	2088226.91	749963.51	Benzo(A)Anthracene	0	0.5	76	42	NA	34900	800000.00	ug/kg
DC41-000	2088426.17	749715.79	Pyrene	0	0.5	50	45	NA	22100000	—	ug/kg
DC42-000	2088478.64	749918.10	Aroclor-1254	0	0.5	7.6	6.5	NA	12400	371000.00	ug/kg
DC42-000	2088478.64	749918.10	Pyrene	0	0.5	53	42	NA	22100000	—	ug/kg
DD40-000	2088585.28	749572.23	Aroclor-1254	0	0.5	11	6.6	NA	12400	371000.00	ug/kg
DD40-000	2088585.28	749572.23	Pyrene	0	0.5	54	44	NA	22100000	—	ug/kg
DD42-000	2088664.41	749777.16	Aroclor-1254	0	0.5	6.8	6.4	NA	12400	371000.00	ug/kg
DD42-000	2088664.41	749777.16	Pyrene	0	0.5	130	42	NA	22100000	—	ug/kg
DD42-000	2088664.41	749777.16	Fluoranthene	0	0.5	130	88	NA	27200000	—	ug/kg
DD42-000	2088664.41	749777.16	Benzo(A)Anthracene	0	0.5	46	41	NA	34900	800000.00	ug/kg
DD42-000	2088664.41	749777.16	Chrysene	0	0.5	64	56	NA	3490000	—	ug/kg
DD43-001	2088550.71	750003.07	Aroclor-1254	0	0.5	27	6.5	NA	12400	371000.00	ug/kg
DE40-000	2088809.06	749552.11	Aroclor-1254	0	0.5	9.1	6.4	NA	12400	371000.00	ug/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DE40-000	2088809.06	749552.11	Pyrene	0	0.5	93	42	NA	22100000	—	ug/kg
DE40-000	2088809.06	749552.11	Fluoranthene	0	0.5	91	89	NA	27200000	—	ug/kg
DF41-000	2089000.19	749737.05	Aroclor-1260	0	0.5	6.2	5.2	NA	12400	—	ug/kg
DF41-000	2089000.19	749737.05	Pyrene	0	0.5	51	43	NA	22100000	—	ug/kg
DE42-000	2088837.41	749946.42	Lithium	0	0.5	15.4	0.26	11.55	20400	—	mg/kg
DE42-000	2088837.41	749946.42	Chromium	0	0.5	19.7	0.38	16.99	268	—	mg/kg
DE42-000	2088837.41	749946.42	Molybdenum	0	0.5	0.19	0.14	NA	5110	—	mg/kg
DE42-000	2088837.41	749946.42	Aluminum	0	0.5	21600	1.9	16902.00	228000	—	mg/kg
DE42-000	2088837.41	749946.42	Silver	0	0.5	0.19	0.07	NA	5110	—	mg/kg
DE42-000	2088837.41	749946.42	Pyrene	0	0.5	81	43	NA	22100000	—	ug/kg
DF42-000	2089129.65	749906.57	Silver	0	0.5	1.3	0.068	NA	5110	—	mg/kg
DF42-000	2089129.65	749906.57	Lithium	0	0.5	15.4	0.25	11.55	20400	—	mg/kg
DF42-000	2089129.65	749906.57	Aluminum	0	0.5	17100	1.9	16902.00	228000	—	mg/kg
DF42-000	2089129.65	749906.57	Copper	0	0.5	36.7	0.19	18.06	40900	—	mg/kg
DF42-000	2089129.65	749906.57	Pyrene	0	0.5	67	43	NA	22100000	—	ug/kg
DB39-001	2088323.82	749287.21	Aluminum	0	0.5	18800	1.9	16902.00	228000	—	mg/kg
DB39-001	2088323.82	749287.21	Chromium	0	0.5	17	0.36	16.99	268	—	mg/kg
DB39-001	2088323.82	749287.21	Zinc	0	0.5	79	0.59	73.76	307000	—	mg/kg
DB39-001	2088323.82	749287.21	Lithium	0	0.5	15.2	0.25	11.55	20400	—	mg/kg
DB39-001	2088323.82	749287.21	Silver	0	0.5	1.1	0.067	NA	5110	—	mg/kg
DB41-000	2088280.51	749574.27	Silver	0	0.5	2.6	0.067	NA	5110	—	mg/kg
DB41-000	2088280.51	749574.27	Molybdenum	0	0.5	0.17	0.13	NA	5110	—	mg/kg
DB41-000	2088280.51	749574.27	Lithium	0	0.5	16.2	0.25	11.55	20400	—	mg/kg
DB41-000	2088280.51	749574.27	Chromium	0	0.5	17.1	0.36	16.99	268	—	mg/kg
DB41-000	2088280.51	749574.27	Aluminum	0	0.5	18700	1.9	16902.00	228000	—	mg/kg
DB43-000	2088219.15	750163.83	Lithium	0	0.5	11.7	0.26	11.55	20400	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DB43-001	2088226.91	749963.51	Molybdenum	0	0.5	0.15	0.14	NA	5110	—	mg/kg
DB43-001	2088226.91	749963.51	Silver	0	0.5	0.26	0.069	NA	5110	—	mg/kg
DB43-001	2088226.91	749963.51	Aluminum	0	0.5	17000	1.9	16902.00	228000	—	mg/kg
DB43-001	2088226.91	749963.51	Lithium	0	0.5	13.6	0.25	11.55	20400	—	mg/kg
DC40-000	2088396.73	749412.32	Lithium	0	0.5	13.2	0.26	11.55	20400	—	mg/kg
DC40-000	2088396.73	749412.32	Silver	0	0.5	0.75	0.071	NA	5110	—	mg/kg
DC41-000	2088426.17	749715.79	Iron	0	0.5	23800	1.8	18037.00	307000	—	mg/kg
DC41-000	2088426.17	749715.79	Nickel	0	0.5	48.4	0.47	14.91	20400	—	mg/kg
DC41-000	2088426.17	749715.79	Molybdenum	0	0.5	0.62	0.14	NA	5110	—	mg/kg
DC41-000	2088426.17	749715.79	Zinc	0	0.5	104	0.63	73.76	307000	—	mg/kg
DC41-000	2088426.17	749715.79	Cobalt	0	0.5	21.6	0.37	10.91	1550	—	mg/kg
DC41-000	2088426.17	749715.79	Beryllium	0	0.5	1.3	0.055	0.97	921	2.15	mg/kg
DC41-000	2088426.17	749715.79	Barium	0	0.5	154	0.058	141.26	26400	—	mg/kg
DC41-000	2088426.17	749715.79	Silver	0	0.5	0.28	0.071	NA	5110	—	mg/kg
DC42-000	2088478.64	749918.10	Molybdenum	0	0.5	0.53	0.14	NA	5110	—	mg/kg
DC42-000	2088478.64	749918.10	Silver	0	0.5	0.7	0.07	NA	5110	—	mg/kg
DC42-000	2088478.64	749918.10	Aluminum	0	0.5	18100	1.9	16902.00	228000	—	mg/kg
DC42-000	2088478.64	749918.10	Chromium	0	0.5	17.8	0.38	16.99	268	—	mg/kg
DC42-000	2088478.64	749918.10	Lithium	0	0.5	16	0.26	11.55	20400	—	mg/kg
DD40-000	2088585.28	749572.23	Lithium	0	0.5	23.7	0.26	11.55	20400	—	mg/kg
DD40-000	2088585.28	749572.23	Nickel	0	0.5	22.6	0.47	14.91	20400	—	mg/kg
DD40-000	2088585.28	749572.23	Iron	0	0.5	19000	1.8	18037.00	307000	—	mg/kg
DD40-000	2088585.28	749572.23	Chromium	0	0.5	28.6	0.39	16.99	268	—	mg/kg
DD40-000	2088585.28	749572.23	Copper	0	0.5	27.8	0.2	18.06	40900	—	mg/kg
DD40-000	2088585.28	749572.23	Aluminum	0	0.5	21200	2	16902.00	228000	—	mg/kg
DD40-000	2088585.28	749572.23	Silver	0	0.5	2.3	0.072	NA	5110	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DD43-001	2088550.71	750003.07	Silver	0	0.5	0.16	0.071	NA	5110	—	mg/kg
DD43-001	2088550.71	750003.07	Strontium	0	0.5	194	0.016	48.94	613000	—	mg/kg
DD43-001	2088550.71	750003.07	Barium	0	0.5	158	0.058	141.26	26400	—	mg/kg
DE40-000	2088809.06	749552.11	Nickel	0	0.5	15.3	0.45	14.91	20400	—	mg/kg
DE40-000	2088809.06	749552.11	Iron	0	0.5	18400	1.7	18037.00	307000	—	mg/kg
DE40-000	2088809.06	749552.11	Lithium	0	0.5	19.5	0.25	11.55	20400	—	mg/kg
DE40-000	2088809.06	749552.11	Copper	0	0.5	20.3	0.19	18.06	40900	—	mg/kg
DE40-000	2088809.06	749552.11	Molybdenum	0	0.5	0.52	0.14	NA	5110	—	mg/kg
DE40-000	2088809.06	749552.11	Silver	0	0.5	4.4	0.068	NA	5110	—	mg/kg
DE40-000	2088809.06	749552.11	Zinc	0	0.5	75.4	0.6	73.76	307000	—	mg/kg
DE40-000	2088809.06	749552.11	Beryllium	0	0.5	0.99	0.053	0.97	921	2.15	mg/kg
DE40-000	2088809.06	749552.11	Chromium	0	0.5	20.1	0.37	16.99	268	—	mg/kg
DE40-000	2088809.06	749552.11	Aluminum	0	0.5	22500	1.9	16902.00	228000	—	mg/kg
DF41-000	2089000.19	749737.05	Lithium	0	0.5	11.6	0.26	11.55	20400	—	mg/kg
DF41-000	2089000.19	749737.05	Silver	0	0.5	1.6	0.07	NA	5110	—	mg/kg
DG41-A01	2089248.07	749648.40	Nickel	0	0.5	21.3	0.52	14.91	20400	—	mg/kg
DG41-A01	2089248.07	749648.40	Aluminum	0	0.5	18800	2.2	16902.00	228000	—	mg/kg
DG41-A01	2089248.07	749648.40	Lithium	0	0.5	15.4	0.29	11.55	20400	—	mg/kg
DG41-A01	2089248.07	749648.40	Silver	0	0.5	1.6	0.079	NA	5110	—	mg/kg
DG41-A01	2089248.07	749648.40	Manganese	0	0.5	438	0.05	365.08	3480	—	mg/kg
CV41-001	2086994.24	749570.86	Aroclor-1254	0	0.5	38	6.8	NA	12400	371000.00	ug/kg
CV41-001	2086994.24	749570.86	Aroclor-1260	0	0.5	24	5.4	NA	12400	—	ug/kg
CV41-001	2086994.24	749570.86	Fluoranthene	0	0.5	160	94	NA	27200000	—	ug/kg
CV41-001	2086994.24	749570.86	Benzo(A)Anthracene	0	0.5	54	44	NA	34900	—	ug/kg
CV41-001	2086994.24	749570.86	Chrysene	0	0.5	89	60	NA	3490000	—	ug/kg
CV41-001	2086994.24	749570.86	Pyrene	0	0.5	160	45	NA	22100000	—	ug/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-001	2086994.24	749570.86	Indeno(1,2,3-Cd)Pyrene	0	0.5	72	54	NA	34900	—	ug/kg
CV41-001	2086994.24	749570.86	Benzoic Acid	0	0.5	920	640	NA	1000000000	—	ug/kg
CV41-004	2087073.47	749619.88	Nickel	0	0.5	19.3	0.7	14.91	20400	—	mg/kg
CV41-004	2087073.47	749619.88	Beryllium	0	0.5	1	0.033	0.97	921	2.15	mg/kg
CV41-004	2087073.47	749619.88	Uranium	0	0.5	4.3	1.5	NA	2750	67.8	mg/kg
CV41-004	2087073.47	749619.88	Aluminum	0	0.5	23700	1.3	16902.00	228000	—	mg/kg
CV41-004	2087073.47	749619.88	Lithium	0	0.5	16.5	0.19	11.55	20400	—	mg/kg
CV41-004	2087073.47	749619.88	Aroclor-1254	0	0.5	28	6.7	NA	12400	371000.00	ug/kg
CV41-004	2087073.47	749619.88	Aroclor-1260	0	0.5	37	5.3	NA	12400	—	ug/kg
CV41-004	2087073.47	749619.88	Indeno(1,2,3-Cd)Pyrene	0	0.5	180	53	NA	34900	—	ug/kg
CV41-004	2087073.47	749619.88	Chrysene	0	0.5	300	59	NA	3490000	—	ug/kg
CV41-004	2087073.47	749619.88	Benzo(B)Fluoranthene	0	0.5	230	110	NA	34900	1010000.00	ug/kg
CV41-004	2087073.47	749619.88	Benzo(A)Pyrene	0	0.5	290	100	NA	3490	25700.00	ug/kg
CV41-004	2087073.47	749619.88	Benzo(K)Fluoranthene	0	0.5	210	100	NA	349000	1010000.00	ug/kg
CV41-004	2087073.47	749619.88	Acenaphthene	0	0.5	71	51	NA	40800000	—	ug/kg
CV41-004	2087073.47	749619.88	Benzo(A)Anthracene	0	0.5	220	43	NA	34900	800000.00	ug/kg
CV41-006	2087106.37	749621.22	Aluminum	0	0.5	17400	1.2	16902.00	228000	—	mg/kg
CV41-006	2087106.37	749621.22	Aroclor-1260	0	0.5	9	4.9	NA	12400	—	ug/kg
CV41-006	2087106.37	749621.22	Pyrene	0	0.5	230	41	NA	22100000	—	ug/kg
CV41-006	2087106.37	749621.22	Chrysene	0	0.5	120	55	NA	3490000	—	ug/kg
CV41-006	2087106.37	749621.22	Fluoranthene	0	0.5	230	86	NA	27200000	—	ug/kg
CV41-006	2087106.37	749621.22	Benzo(K)Fluoranthene	0	0.5	110	96	NA	349000	1010000.00	ug/kg
CV41-006	2087106.37	749621.22	Benzo(A)Pyrene	0	0.5	110	97	NA	3490	25700.00	ug/kg
CV41-006	2087106.37	749621.22	Benzo(A)Anthracene	0	0.5	91	40	NA	34900	800000.00	ug/kg
CW40-004	2087204.29	749479.75	Strontium	0	0.5	165	0.0066	48.94	613000	—	mg/kg
CW40-004	2087204.29	749479.75	Silver	0	0.5	42.8	0.059	NA	5110	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-004	2087204.29	749479.75	Nickel	0	0.5	15.1	0.69	14.91	20400	—	mg/kg
CW40-004	2087204.29	749479.75	Uranium	0	0.5	8	1.5	NA	2750	67.8	mg/kg
CW40-004	2087204.29	749479.75	Mercury	0	0.5	0.16	0.0013	0.13	25200	—	mg/kg
CW40-004	2087204.29	749479.75	Barium	0	0.5	160	0.042	141.26	26400	—	mg/kg
CW40-004	2087204.29	749479.75	Pyrene	0	0.5	48	44	NA	22100000	—	ug/kg
CW41-001	2087163.44	749648.07	Mercury	0	0.5	0.15	0.0012	0.13	25200	—	mg/kg
CW41-001	2087163.44	749648.07	Strontium	0	0.5	69.6	0.0062	48.94	613000	—	mg/kg
CW41-001	2087163.44	749648.07	Cadmium	0	0.5	2.6	0.047	1.61	962	—	mg/kg
CW41-001	2087163.44	749648.07	Aluminum	0	0.5	18300	1.2	16902.00	228000	—	mg/kg
CW41-001	2087163.44	749648.07	Nickel	0	0.5	15.7	0.65	14.91	20400	—	mg/kg
CW41-001	2087163.44	749648.07	Aroclor-1260	0	0.5	7.5	4.9	NA	12400	—	ug/kg
CW41-001	2087163.44	749648.07	Pyrene	0	0.5	79	41	NA	22100000	—	ug/kg
CW41-001	2087163.44	749648.07	Fluoranthene	0	0.5	89	86	NA	27200000	—	ug/kg
CW41-002	2087178.88	749622.56	Molybdenum	0	0.5	0.53	0.13	NA	5110	—	mg/kg
CV43-000	2087134.60	749980.95	Vanadium	0	0.5	58.1	0.25	45.59	7150	433.00	mg/kg
CV43-000	2087134.60	749980.95	Iron	0	0.5	21900	1.5	18037.00	307000	—	mg/kg
CV43-000	2087134.60	749980.95	Copper	0	0.5	36.9	0.16	18.06	40900	—	mg/kg
CV43-000	2087134.60	749980.95	Manganese	0	0.5	436	0.033	365.08	3480	—	mg/kg
CV43-000	2087134.60	749980.95	Nickel	0	0.5	28.3	0.66	14.91	20400	—	mg/kg
CV43-000	2087134.60	749980.95	Molybdenum	0	0.5	0.26	0.14	NA	5110	—	mg/kg
CV43-000	2087134.60	749980.95	Strontium	0	0.5	84.2	0.0063	48.94	613000	—	mg/kg
CV43-001	2087135.47	749967.93	Lithium	0	0.5	12	0.17	11.55	20400	—	mg/kg
CW43-000	2087145.35	749981.91	Molybdenum	0	0.5	0.16	0.14	NA	5110	—	mg/kg
CW43-000	2087145.35	749981.91	Nickel	0	0.5	20.5	0.66	14.91	20400	—	mg/kg
CW43-000	2087145.35	749981.91	Strontium	0	0.5	53.1	0.0063	48.94	613000	—	mg/kg
CW43-000	2087145.35	749981.91	Aluminum	0	0.5	17300	1.3	16902.00	228000	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW43-000	2087145.35	749981.91	Iron	0	0.5	18600	1.5	18037.00	307000	—	mg/kg
CW43-000	2087145.35	749981.91	Copper	0	0.5	27.3	0.16	18.06	40900	—	mg/kg
CW43-000	2087145.35	749981.91	Lithium	0	0.5	13.4	0.18	11.55	20400	—	mg/kg
CW43-001	2087140.61	749975.88	Molybdenum	0	0.5	0.4	0.13	NA	5110	—	mg/kg
CW43-001	2087140.61	749975.88	Manganese	0	0.5	392	0.033	365.08	3480	—	mg/kg
CW43-001	2087140.61	749975.88	Lithium	0	0.5	12.5	0.17	11.55	20400	—	mg/kg
CW43-001	2087140.61	749975.88	Iron	0	0.5	20300	1.4	18037.00	307000	—	mg/kg
CW43-001	2087140.61	749975.88	Copper	0	0.5	31.3	0.15	18.06	40900	—	mg/kg
CW43-001	2087140.61	749975.88	Vanadium	0	0.5	46.1	0.25	45.59	7150	433.00	mg/kg
CW43-001	2087140.61	749975.88	Strontium	0	0.5	56.1	0.0061	48.94	613000	—	mg/kg
CW43-001	2087140.61	749975.88	Nickel	0	0.5	21.7	0.64	14.91	20400	—	mg/kg
CW43-002	2087147.12	749969.73	Lithium	0	0.5	12	0.17	11.55	20400	—	mg/kg
BW52-000	2082012.80	751772.30	Tetrachloroethene	0	0.5	10	0.99	NA	615000	37500.00	ug/kg
CV40-002	2087119.05	749442.72	Silver	0	0.5	0.79	0.055	NA	5110	—	mg/kg
CV40-002	2087119.05	749442.72	Aroclor-1254	0	0.5	230	4.4	NA	12400	371000.00	ug/kg
CV40-002	2087119.05	749442.72	Fluoranthene	0	0.5	180	86	NA	27200000	—	ug/kg
CV40-002	2087119.05	749442.72	N-Nitroso-Di-N-Propylamine	0	0.5	400	90	NA	5470	—	ug/kg
CV40-002	2087119.05	749442.72	Benzo(A)Anthracene	0	0.5	65	40	NA	34900	800000.00	ug/kg
CV40-002	2087119.05	749442.72	Anthracene	0	0.5	81	80	NA	204000000	—	ug/kg
CV40-002	2087119.05	749442.72	Chrysene	0	0.5	87	54	NA	3490000	—	ug/kg
CV40-002	2087119.05	749442.72	Pyrene	0	0.5	150	41	NA	22100000	—	ug/kg
CW40-001	2087145.33	749448.88	Barium	0	0.5	144	0.041	141.26	26400	—	mg/kg
CW40-001	2087145.33	749448.88	Silver	0	0.5	0.49	0.059	NA	5110	—	mg/kg
CW40-001	2087145.33	749448.88	Aroclor-1254	0	0.5	200	4.7	NA	12400	371000.00	ug/kg
CW40-001	2087145.33	749448.88	Aroclor-1260	0	0.5	180	5.2	NA	12400	—	ug/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-002	2087173.08	749468.30	Aroclor-1254	0	0.5	120	4.6	NA	12400	371000.00	ug/kg
CW40-002	2087173.08	749468.30	Aroclor-1260	0	0.5	84	5.1	NA	12400	—	ug/kg
CW40-001	2087145.33	749448.88	Pyrene	0	0.5	65	44	NA	22100000	—	ug/kg
CW40-002	2087173.08	749468.30	Barium	0	0.5	202	0.041	141.26	26400	—	mg/kg
CW40-002	2087173.08	749468.30	Silver	0	0.5	1.5	0.058	NA	5110	—	mg/kg
CW40-002	2087173.08	749468.30	Molybdenum	0	0.5	0.22	0.14	NA	5110	—	mg/kg
CW40-003	2087207.75	749457.21	Silver	0	0.5	7.1	0.056	NA	5110	—	mg/kg
CW40-003	2087207.75	749457.21	Nickel	0	0.5	15.6	0.65	14.91	20400	—	mg/kg
CW40-003	2087207.75	749457.21	Barium	0	0.5	146	0.039	141.26	26400	—	mg/kg
CW40-003	2087207.75	749457.21	Aroclor-1254	0	0.5	110	4.4	NA	12400	371000.00	ug/kg
CW40-003	2087207.75	749457.21	Aroclor-1260	0	0.5	42	5	NA	12400	—	ug/kg
CW40-004	2087204.29	749479.75	Silver	0	0.5	19.9	0.058	NA	5110	—	mg/kg
CW40-004	2087204.29	749479.75	Nickel	0	0.5	17.3	0.68	14.91	20400	—	mg/kg
CW40-004	2087204.29	749479.75	Barium	0	0.5	152	0.041	141.26	26400	—	mg/kg
CW40-004	2087204.29	749479.75	Lithium	0	0.5	11.9	0.18	11.55	20400	—	mg/kg
CW40-004	2087204.29	749479.75	Aroclor-1254	0	0.5	220	4.6	NA	12400	371000.00	ug/kg
CW40-004	2087204.29	749479.75	Aroclor-1260	0	0.5	190	5.2	NA	12400	—	ug/kg
STEP OUT 3 - A	2087116.33	749635.15	Fluoranthene	0	0.5	240	43	NA	27200000	—	ug/kg
STEP OUT 3 - A	2087116.33	749635.15	Anthracene	0	0.5	220	72	NA	204000000	—	ug/kg
STEP OUT 3 - A	2087116.33	749635.15	Pyrene	0	0.5	240	62	NA	22100000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Fluoranthene	0	0.5	230	42	NA	27200000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Benzoic Acid	0	0.5	880	300	NA	1000000000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Pyrene	0	0.5	230	61	NA	22100000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Anthracene	0	0.5	220	70	NA	204000000	—	ug/kg
BW52-000	2082012.80	751772.30	Methylene Chloride	0	0.5	1.5	0.8	NA	2530000	395000.00	ug/kg
DB44-000	2088317.84	750231.30	Tin	0	0.5	2	0.3	NA	613000	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DB44-000	2088317.84	750231.30	Molybdenum	0	0.5	0.31	0.14	NA	5110	—	mg/kg
DC45-000	2088455.44	750459.28	Tin	0	0.5	2.2	0.3	NA	613000	—	mg/kg
DC43-000	2088442.46	750152.87	Tin	0	0.5	2.2	0.3	NA	613000	—	mg/kg
DD44-000	2088472.83	750275.17	Tin	0	0.5	1.9	0.3	NA	613000	—	mg/kg
DD39-000	2088620.52	749244.49	Tin	0	0.5	1.4	0.3	NA	613000	—	mg/kg
DF40-000	2089088.49	749473.32	Tin	0	0.5	1.4	0.3	NA	613000	—	mg/kg
DG41-000	2089312.89	749743.20	Tin	0	0.5	2.2	0.3	NA	613000	—	mg/kg
DH43-000	2089365.30	749991.19	Tin	0	0.5	1.8	0.29	NA	613000	—	mg/kg
DC39-000	2088448.57	749186.75	Molybdenum	0	0.5	0.36	0.14	NA	5110	—	mg/kg
DC39-000	2088448.57	749186.75	Tin	0	0.5	2.3	0.29	NA	613000	—	mg/kg
DD43-000	2088554.95	750249.97	Tin	0	0.5	2.1	0.3	NA	613000	—	mg/kg
DE42-000	2088837.41	749946.42	Tin	0	0.5	1.8	0.3	NA	613000	—	mg/kg
DF42-000	2089129.65	749906.57	Tin	0	0.5	2	0.29	NA	613000	—	mg/kg
DB39-001	2088323.82	749287.21	Tin	0	0.5	2.4	0.29	NA	613000	—	mg/kg
DB41-000	2088280.51	749574.27	Tin	0	0.5	1.9	0.29	NA	613000	—	mg/kg
DB43-000	2088219.15	750163.83	Tin	0	0.5	1.7	0.3	NA	613000	—	mg/kg
DB43-001	2088226.91	749963.51	Tin	0	0.5	2.2	0.3	NA	613000	—	mg/kg
DC40-000	2088396.73	749412.32	Tin	0	0.5	1.7	0.31	NA	613000	—	mg/kg
DC41-000	2088426.17	749715.79	Tin	0	0.5	1.8	0.31	NA	613000	—	mg/kg
DC42-000	2088478.64	749918.10	Tin	0	0.5	2.4	0.3	NA	613000	—	mg/kg
DD40-000	2088585.28	749572.23	Selenium	0	0.5	1.4	0.44	1.22	5110	—	mg/kg
DD40-000	2088585.28	749572.23	Tin	0	0.5	2.7	0.31	NA	613000	—	mg/kg
DD42-000	2088664.41	749777.16	Tin	0	0.5	1.6	0.3	NA	613000	—	mg/kg
DD42-000	2088664.41	749777.16	Selenium	0	0.5	1.9	0.43	1.22	5110	—	mg/kg
DD43-001	2088550.71	750003.07	Tin	0	0.5	1.5	0.31	NA	613000	—	mg/kg
DE40-000	2088809.06	749552.11	Selenium	0	0.5	1.6	0.42	1.22	5110	—	mg/kg

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DE40-000	2088809.06	749552.11	Tin	0	0.5	2.7	0.29	NA	613000	—	mg/kg
DF41-000	2089000.19	749737.05	Tin	0	0.5	2.3	0.3	NA	613000	—	mg/kg
DG41-A01	2089248.07	749648.40	Selenium	0	0.5	1.4	0.48	1.22	5110	—	mg/kg
DG41-A01	2089248.07	749648.40	Tin	0	0.5	1.8	0.34	NA	613000	—	mg/kg
CV41-001	2086994.24	749570.86	Tin	0	0.5	1.1	0.43	NA	613000	—	mg/kg
CV41-004	2087073.47	749619.88	Tin	0	0.5	1.3	0.42	NA	613000	—	mg/kg
CV41-006	2087106.37	749621.22	Tin	0	0.5	3.1	0.39	NA	613000	—	mg/kg
CW40-004	2087204.29	749479.75	Tin	0	0.5	2	0.42	NA	613000	—	mg/kg
CW41-000	2087142.62	749618.53	Tin	0	0.5	0.97	0.39	NA	613000	—	mg/kg
CW41-001	2087163.44	749648.07	Tin	0	0.5	3.1	0.39	NA	613000	—	mg/kg
CV43-000	2087134.60	749980.95	Tin	0	0.5	3.2	0.4	NA	613000	—	mg/kg
CV43-001	2087135.47	749967.93	Tin	0	0.5	2.9	0.39	NA	613000	—	mg/kg
CW43-000	2087145.35	749981.91	Tin	0	0.5	3	0.4	NA	613000	—	mg/kg
CW43-001	2087140.61	749975.88	Tin	0	0.5	3	0.39	NA	613000	—	mg/kg
CW43-002	2087147.12	749969.73	Tin	0	0.5	2.7	0.38	NA	613000	—	mg/kg
CV40-002	2087119.05	749442.72	Tin	0	0.5	2.4	0.39	NA	613000	—	mg/kg
CW40-001	2087145.33	749448.88	Tin	0	0.5	2.8	0.41	NA	613000	—	mg/kg
CW40-002	2087173.08	749468.30	Tin	0	0.5	2.7	0.41	NA	613000	—	mg/kg
CW40-003	2087207.75	749457.21	Tin	0	0.5	2.7	0.39	NA	613000	—	mg/kg
CW40-004	2087204.29	749479.75	Tin	0	0.5	3.3	0.41	NA	613000	—	mg/kg
CV41-004	2087073.47	749619.88	Uranium-234	0	0.5	2.04	8	2.00	300	1800.00	pCi/g
CV41-004	2087073.47	749619.88	Uranium-238	0	0.5	2.04	8	2.00	351	1600.00	pCi/g
CV41-006	2087106.37	749621.22	Plutonium-239/240	0	0.5	10.92	4	0.05	50	3800.00	pCi/g
CV41-006	2087106.37	749621.22	Americium-241	0	0.5	0.952	4	0.02	76	1900.00	pCi/g
CW41-000	2087142.62	749618.53	Uranium-235	0	0.5	0.103	1	0.09	8	1900.00	pCi/g
CV41-001	2086994.24	749570.86	Uranium-235	0	0.5	0.134	1	0.09	8	1900.00	pCi/g

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-004	2087204.29	749479.75	Uranium-235	0	0.5	0.151	1	0.09	8	1900.00	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	0	0.5	2.2	8	2.00	300	1800.00	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	0	0.5	2.2	8	2.00	351	1600.00	pCi/g
CW40-004	2087204.29	749479.75	Plutonium-239/240	0	0.5	9.62	4	0.05	50	3800.00	pCi/g
CW40-004	2087204.29	749479.75	Americium-241	0	0.5	0.785	4	0.02	76	1900.00	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	0	0.5	0.146	1	0.09	8	1900.00	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	0	0.5	4.61	8	2.00	300	1800.00	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	0	0.5	4.61	8	2.00	351	1600.00	pCi/g
CW40-001	2087145.33	749448.88	Uranium-235	0	0.5	0.313	1	0.09	8	1900.00	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	0	0.5	4.7	8	2.00	300	1800.00	pCi/g
CW40-001	2087145.33	749448.88	Uranium-238	0	0.5	4.7	8	2.00	351	1600.00	pCi/g
CW40-001	2087145.33	749448.88	Plutonium-239/240	0	0.5	42.4	4	0.05	50	3800.00	pCi/g
CW40-001	2087145.33	749448.88	Americium-241	0	0.5	4.85	4	0.02	76	1900.00	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	0	0.5	0.439	1	0.09	8	1900.00	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	0	0.5	4.24	8	2.00	300	1800.00	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	0	0.5	4.24	8	2.00	351	1600.00	pCi/g
CW40-004	2087204.29	749479.75	Plutonium-239/240	0	0.5	11.72	4	0.05	50	3800.00	pCi/g
CW40-004	2087204.29	749479.75	Americium-241	0	0.5	1.05	4	0.02	76	1900.00	pCi/g
CW40-003	2087207.75	749457.21	Uranium-235	0	0.5	0.169	1	0.09	8	1900.00	pCi/g
CW40-003	2087207.75	749457.21	Plutonium-239/240	0	0.5	88.0	4	0.05	50	3800.00	pCi/g
CW40-003	2087207.75	749457.21	Americium-241	0	0.5	10.5	4	0.02	76	1900.00	pCi/g
DD40-000	2088585.28	749572.23	Uranium-235	0	0.5	0.197	1	0.09	8	1900.00	pCi/g
DB39-001	2088323.82	749287.21	Uranium-235	0	0.5	0.171	1	0.09	8	1900.00	pCi/g
DB39-001	2088323.82	749287.21	Plutonium-239/240	0	0.5	39.03	4	0.05	50	3800.00	pCi/g
DB39-001	2088323.82	749287.21	Americium-241	0	0.5	4.43	4	0.02	76	1900.00	pCi/g
CW41-001	2087163.44	749648.07	Uranium-235	0	0.5	0.132	1	0.09	8	1900.00	pCi/g

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Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DD43-000	2088554.95	750249.97	Uranium-235	0	0.5	0.178	1	0.09	8	1900.00	pCi/g
DD43-000	2088554.95	750249.97	Plutonium-239/240	0	0.5	18.27	4	0.05	50	3800.00	pCi/g
DD43-000	2088554.95	750249.97	Americium-241	0	0.5	1.86	4	0.02	76	1900.00	pCi/g
DB44-000	2088317.84	750231.30	Uranium-234	0	0.5	2.7	8	2.00	300	1800.00	pCi/g
DB44-000	2088317.84	750231.30	Uranium-238	0	0.5	2.7	8	2.00	351	1600.00	pCi/g
DB44-000	2088317.84	750231.30	Uranium-235	0	0.5	0.174	1	0.09	8	1900.00	pCi/g
DB44-000	2088317.84	750231.30	Plutonium-239/240	0	0.5	9.3	4	0.05	50	3800.00	pCi/g
DB44-000	2088317.84	750231.30	Americium-241	0	0.5	0.747	4	0.02	76	1900.00	pCi/g
DC43-000	2088442.46	750152.87	Uranium-235	0	0.5	0.125	1	0.09	8	1900.00	pCi/g
DC43-000	2088442.46	750152.87	Plutonium-239/240	0	0.5	9.78	4	0.05	50	3800.00	pCi/g
DC43-000	2088442.46	750152.87	Americium-241	0	0.5	0.807	4	0.02	76	1900.00	pCi/g
DC45-000	2088455.44	750459.28	Uranium-234	0	0.5	2.84	8	2.00	300	1800.00	pCi/g
DC45-000	2088455.44	750459.28	Uranium-238	0	0.5	2.84	8	2.00	351	1600.00	pCi/g
DD44-000	2088472.83	750275.17	Uranium-235	0	0.5	0.156	1	0.09	8	1900.00	pCi/g
DD44-000	2088472.83	750275.17	Plutonium-239/240	0	0.5	11.32	4	0.05	50	3800.00	pCi/g
DD44-000	2088472.83	750275.17	Americium-241	0	0.5	1	4	0.02	76	1900.00	pCi/g
DF40-000	2089088.49	749473.32	Uranium-235	0	0.5	0.11	1	0.09	8	1900.00	pCi/g
DG41-000	2089312.89	749743.20	Uranium-235	0	0.5	0.211	1	0.09	8	1900.00	pCi/g
DH43-000	2089365.30	749991.19	Uranium-235	0	0.5	0.228	1	0.09	8	1900.00	pCi/g
DE42-000	2088837.41	749946.42	Plutonium-239/240	0	0.5	10.35	4	0.05	50	3800.00	pCi/g
DE42-000	2088837.41	749946.42	Americium-241	0	0.5	0.88	4	0.02	76	1900.00	pCi/g
DF42-000	2089129.65	749906.57	Uranium-234	0	0.5	2.26	8	2.00	300	1800.00	pCi/g
DF42-000	2089129.65	749906.57	Uranium-238	0	0.5	2.26	8	2.00	351	1600.00	pCi/g
DF42-000	2089129.65	749906.57	Uranium-235	0	0.5	0.151	1	0.09	8	1900.00	pCi/g
DF42-000	2089129.65	749906.57	Plutonium-239/240	0	0.5	14.47	4	0.05	50	3800.00	pCi/g
DF42-000	2089129.65	749906.57	Americium-241	0	0.5	1.39	4	0.02	76	1900.00	pCi/g

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Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DB43-001	2088226.91	749963.51	Uranium-235	0	0.5	0.24	1	0.09	8	1900.00	pCi/g
DB43-001	2088226.91	749963.51	Plutonium-239/240	0	0.5	8.81	4	0.05	50	3800.00	pCi/g
DB43-001	2088226.91	749963.51	Americium-241	0	0.5	0.687	4	0.02	76	1900.00	pCi/g
DD42-000	2088664.41	749777.16	Uranium-234	0	0.5	2.86	8	2.00	300	1800.00	pCi/g
DD42-000	2088664.41	749777.16	Uranium-238	0	0.5	2.86	8	2.00	351	1600.00	pCi/g
DD42-000	2088664.41	749777.16	Uranium-235	0	0.5	0.0948	1	0.09	8	1900.00	pCi/g
DD42-000	2088664.41	749777.16	Plutonium-239/240	0	0.5	16.0	4	0.05	50	3800.00	pCi/g
DD42-000	2088664.41	749777.16	Americium-241	0	0.5	1.58	4	0.02	76	1900.00	pCi/g
DB43-000	2088219.15	750163.83	Plutonium-239/240	0	0.5	6.63	4	0.05	50	3800.00	pCi/g
DB43-000	2088219.15	750163.83	Americium-241	0	0.5	0.423	4	0.02	76	1900.00	pCi/g
DB43-000	2088219.15	750163.83	Uranium-234	0	0.5	2.76	8	2.00	300	1800.00	pCi/g
DB43-000	2088219.15	750163.83	Uranium-238	0	0.5	2.76	8	2.00	351	1600.00	pCi/g
DB43-000	2088219.15	750163.83	Uranium-235	0	0.5	0.211	1	0.09	8	1900.00	pCi/g
DF41-000	2089000.19	749737.05	Plutonium-239/240	0	0.5	7.68	4	0.05	50	3800.00	pCi/g
DF41-000	2089000.19	749737.05	Americium-241	0	0.5	0.549	4	0.02	76	1900.00	pCi/g
DF41-000	2089000.19	749737.05	Uranium-235	0	0.5	0.161	1	0.09	8	1900.00	pCi/g
DF41-000	2089000.19	749737.05	Uranium-234	0	0.5	2.16	8	2.00	300	1800.00	pCi/g
DF41-000	2089000.19	749737.05	Uranium-238	0	0.5	2.16	8	2.00	351	1600.00	pCi/g
DD43-001	2088550.71	750003.07	Uranium-235	0	0.5	0.15	1	0.09	8	1900.00	pCi/g
DD43-001	2088550.71	750003.07	Uranium-234	0	0.5	2.72	8	2.00	300	1800.00	pCi/g
DD43-001	2088550.71	750003.07	Uranium-238	0	0.5	2.72	8	2.00	351	1600.00	pCi/g
DC42-000	2088478.64	749918.10	Uranium-235	0	0.5	0.233	1	0.09	8	1900.00	pCi/g
DC42-000	2088478.64	749918.10	Uranium-234	0	0.5	2.61	8	2.00	300	1800.00	pCi/g
DC42-000	2088478.64	749918.10	Uranium-238	0	0.5	2.61	8	2.00	351	1600.00	pCi/g
DC41-000	2088426.17	749715.79	Uranium-235	0	0.5	0.148	1	0.09	8	1900.00	pCi/g
DC41-000	2088426.17	749715.79	Plutonium-239/240	0	0.5	12.61	4	0.05	50	3800.00	pCi/g

Table 3
Surface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	DL/RL	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DC41-000	2088426.17	749715.79	Americium-241	0	0.5	1.16	4	0.02	76	1900.00	pCi/g
DB41-000	2088280.51	749574.27	Plutonium-239/240	0	0.5	19.4	4	0.05	50	3800.00	pCi/g
DB41-000	2088280.51	749574.27	Americium-241	0	0.5	2	4	0.02	76	1900.00	pCi/g
DB41-000	2088280.51	749574.27	Uranium-234	0	0.5	2.65	8	2.00	300	1800.00	pCi/g
DB41-000	2088280.51	749574.27	Uranium-238	0	0.5	2.65	8	2.00	351	1600.00	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-006	2087106.37	749621.22	1,1,2,2-Tetrachloroethane	0.5	2.5	72	26	NA	100000	—	ug/kg
BW52-000	2082012.8	751772.3	2-Butanone	0.5	2.5	200	5.5	NA	192000000	433000	ug/kg
BW52-000	2082012.8	751772.3	2-Butanone	0.5	2.5	720	4.8	NA	192000000	433000	ug/kg
BW52-000	2082012.8	751772.3	2-Butanone	0.5	2.5	520	5	NA	192000000	433000	ug/kg
BW52-000	2082012.8	751772.3	2-Butanone	0.5	2.5	16	5.5	NA	192000000	433000	ug/kg
BW52-000	2082012.8	751772.3	2-Butanone	0.5	2.5	400	5.6	NA	192000000	433000	ug/kg
BW52-000	2082012.8	751772.3	2-Butanone	0.5	2.5	560	5.2	NA	192000000	433000	ug/kg
CV41-004	2087073.47	749619.88	2-Butanone	1	3	5400	320	NA	192000000	433000	ug/kg
CV41-006	2087106.37	749621.22	2-Butanone	2.5	4.5	380	340	NA	192000000	433000	ug/kg
CV41-006	2087106.37	749621.22	2-Butanone	2.5	4.5	420	340	NA	192000000	433000	ug/kg
STEP OUT 4-B	2087113.72	749616.62	Acenaphthene	0.5	1	140	50	NA	40800000	—	ug/kg
CV41-005	2087086.22	749593.02	Acetone	0.5	2.5	6	5	NA	102000000	211000	ug/kg
CW40-004	2087204.29	749479.75	Acetone	0.5	2.5	5.3	5	NA	102000000	211000	ug/kg
CW40-004	2087204.29	749479.75	Acetone	0.5	2.5	5.6	5.1	NA	102000000	211000	ug/kg
CW41-002	2087178.88	749622.56	Acetone	0.5	0.667	6	4.8	NA	102000000	211000	ug/kg
CW41-000	2087142.62	749618.53	Acetone	0.5	2.5	6.6	5.1	NA	102000000	211000	ug/kg
BW52-000	2082012.8	751772.3	Acetone	0.5	2.5	510	4.7	NA	102000000	211000	ug/kg
BW52-000	2082012.8	751772.3	Acetone	0.5	2.5	370	4.9	NA	102000000	211000	ug/kg
BW52-000	2082012.8	751772.3	Acetone	0.5	2.5	140	5.4	NA	102000000	211000	ug/kg
BW52-000	2082012.8	751772.3	Acetone	0.5	2.5	690	5.4	NA	102000000	211000	ug/kg
BW52-000	2082012.8	751772.3	Acetone	0.5	2.5	290	5	NA	102000000	211000	ug/kg
CV40-002	2087119.05	749442.72	Acetone	0.5	2.5	5.1	4.7	NA	102000000	211000	ug/kg
CW40-002	2087173.08	749468.3	Acetone	0.5	2.5	20	5.6	NA	102000000	211000	ug/kg
CW40-002	2087173.08	749468.3	Acetone	0.5	2.5	14	5.4	NA	102000000	211000	ug/kg
CW40-001	2087145.33	749448.88	Acetone	0.5	2.5	5	4.7	NA	102000000	211000	ug/kg
CW40-002	2087173.08	749468.3	Acetone	0.5	2.5	5.7	4.9	NA	102000000	211000	ug/kg
CW40-001	2087145.33	749448.88	Acetone	0.5	2.5	5.3	4.8	NA	102000000	211000	ug/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-002	2087173.08	749468.3	Acetone	0.5	2.5	5.8	4.7	NA	102000000	211000	ug/kg
CV41-006	2087106.37	749621.22	Acetone	0.5	2.5	11	4.8	NA	102000000	211000	ug/kg
CV41-006	2087106.37	749621.22	Acetone	0.5	2.5	7.7	4.8	NA	102000000	211000	ug/kg
CW41-001	2087163.44	749648.07	Acetone	0.5	2.5	18	5	NA	102000000	211000	ug/kg
STEP OUT 4 - D	2087113.72	749616.62	Acetone	0.5	2.5	8.4	5.3	NA	102000000	211000	ug/kg
CW41-001	2087163.44	749648.07	Aluminum	0.5	1	18300	1.2	16902	228000	—	mg/kg
CW43-000	2087145.35	749981.91	Aluminum	0.5	1	17300	1.3	16902	228000	—	mg/kg
CV41-006	2087106.37	749621.22	Americium-241	4.5	6.5	0.952	4	0.02	76	1900	pCi/g
CV41-006	2087106.37	749621.22	Americium-241	4.5	6.5	0.522	4	0.02	76	1900	pCi/g
CW40-004	2087204.29	749479.75	Americium-241	4.5	6.5	0.785	4	0.02	76	1900	pCi/g
CW40-000	2087139.09	749477.67	Americium-241	5	7	0.113	4	0.02	76	1900	pCi/g
CW40-002	2087173.08	749468.3	Americium-241	6.5	8.5	2.62	4	0.02	76	1900	pCi/g
CW40-002	2087173.08	749468.3	Americium-241	6.5	8.5	0.204	4	0.02	76	1900	pCi/g
CW40-001	2087145.33	749448.88	Americium-241	7	9	4.85	4	0.02	76	1900	pCi/g
CW40-001	2087145.33	749448.88	Americium-241	7	9	0.222	4	0.02	76	1900	pCi/g
CV40-002	2087119.05	749442.72	Americium-241	7	9	2.89	4	0.02	76	1900	pCi/g
CW40-004	2087204.29	749479.75	Americium-241	7	9	1.05	4	0.02	76	1900	pCi/g
CW40-003	2087207.75	749457.21	Americium-241	8.5	10.5	0.588	4	0.02	76	1900	pCi/g
DB39-001	2088323.82	749287.21	Americium-241	8.5	10.5	4.43	4	0.02	76	1900	pCi/g
DD43-000	2088554.95	750249.97	Americium-241	8.5	10.5	1.86	4	0.02	76	1900	pCi/g
DB44-000	2088317.84	750231.3	Americium-241	8.5	10.5	0.747	4	0.02	76	1900	pCi/g
DC43-000	2088442.46	750152.87	Americium-241	8.5	10.5	0.807	4	0.02	76	1900	pCi/g
DD44-000	2088472.83	750275.17	Americium-241	9	11	1	4	0.02	76	1900	pCi/g
DE42-000	2088837.41	749946.42	Americium-241	9	11	0.88	4	0.02	76	1900	pCi/g
DF42-000	2089129.65	749906.57	Americium-241	9	11	1.39	4	0.02	76	1900	pCi/g
DB43-001	2088226.91	749963.51	Americium-241	9	11	0.687	4	0.02	76	1900	pCi/g
DD42-000	2088664.41	749777.16	Americium-241	9	11	1.58	4	0.02	76	1900	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DB43-000	2088219.15	750163.83	Americium-241	9	11	0.423	4	0.02	76	1900	pCi/g
DF41-000	2089000.19	749737.05	Americium-241	9	11	0.549	4	0.02	76	1900	pCi/g
DC41-000	2088426.17	749715.79	Americium-241	14.5	16.5	1.16	4	0.02	76	1900	pCi/g
DB41-000	2088280.51	749574.27	Americium-241	14.5	16.5	2	4	0.02	76	1900	pCi/g
CV40-002	2087119.05	749442.72	Anthracene	0.5	2.5	81	80	NA	204000000	—	ug/kg
STEP OUT 3 - A	2087116.33	749635.15	Anthracene	0.5	2.5	220	72	NA	204000000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Anthracene	0.5	1	220	70	NA	204000000	—	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Anthracene	0.5	1	300	72	NA	204000000	—	ug/kg
CW40-004	2087204.29	749479.75	Aroclor-1254	0.5	2.5	130	6.7	NA	12400	—	ug/kg
CV40-002	2087119.05	749442.72	Aroclor-1254	0.5	2.5	230	4.4	NA	12400	371000	ug/kg
CV40-002	2087119.05	749442.72	Aroclor-1254	0.5	2.5	160	4.5	NA	12400	371000	ug/kg
CW40-001	2087145.33	749448.88	Aroclor-1254	0.5	1	200	4.7	NA	12400	371000	ug/kg
CW40-002	2087173.08	749468.3	Aroclor-1254	0.5	1	120	4.6	NA	12400	371000	ug/kg
CW40-003	2087207.75	749457.21	Aroclor-1254	0.5	2.5	110	4.4	NA	12400	371000	ug/kg
CW40-004	2087204.29	749479.75	Aroclor-1254	0.5	2.5	220	4.6	NA	12400	371000	ug/kg
CW40-001	2087145.33	749448.88	Aroclor-1254	0.5	2.5	14	4.9	NA	12400	371000	ug/kg
CW40-002	2087173.08	749468.3	Aroclor-1254	0.5	2.5	35	5	NA	12400	371000	ug/kg
CW40-004	2087204.29	749479.75	Aroclor-1260	0.5	2.5	50	5.3	NA	12400	—	ug/kg
CW41-001	2087163.44	749648.07	Aroclor-1260	0.5	2.5	7.5	4.9	NA	12400	—	ug/kg
CV41-003	2087050.64	749597.05	Aroclor-1260	0.5	2.5	7.2	5.7	NA	12400	—	ug/kg
CV40-002	2087119.05	749442.72	Aroclor-1260	0.5	2.5	120	5.1	NA	12400	—	ug/kg
CW40-001	2087145.33	749448.88	Aroclor-1260	0.5	2.5	180	5.2	NA	12400	—	ug/kg
CW40-002	2087173.08	749468.3	Aroclor-1260	0.5	1	84	5.1	NA	12400	—	ug/kg
CW40-003	2087207.75	749457.21	Aroclor-1260	0.5	2.5	42	5	NA	12400	—	ug/kg
CW40-004	2087204.29	749479.75	Aroclor-1260	0.5	2.5	190	5.2	NA	12400	—	ug/kg
CV41-002	2087015.06	749599.73	Aroclor-1260	3	5	21	5.6	NA	12400	—	ug/kg
CW40-001	2087145.33	749448.88	Arsenic	0.5	2.5	17.8	0.58	13.14	22.2	21.6	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-004	2087204.29	749479.75	Barium	0.5	2.5	160	0.042	141.26	26400	—	mg/kg
CW40-001	2087145.33	749448.88	Barium	0.5	1	144	0.041	141.26	26400	—	mg/kg
CW40-002	2087173.08	749468.3	Barium	0.5	2.5	202	0.041	141.26	26400	—	mg/kg
CW40-003	2087207.75	749457.21	Barium	0.5	2.5	146	0.039	141.26	26400	—	mg/kg
CW40-004	2087204.29	749479.75	Barium	0.5	2.5	152	0.041	141.26	26400	—	mg/kg
CW40-001	2087145.33	749448.88	Barium	0.5	2.5	838	0.044	289.38	26400	—	mg/kg
CV40-002	2087119.05	749442.72	Benzo(A)Anthracene	0.5	2.5	65	40	NA	34900	800000	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Benzo(A)Anthracene	0.5	1	290	43	NA	34900	800000	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Benzo(A)Pyrene	0.5	1	270	57	NA	3490	25700	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Benzo(B)Fluoranthene	0.5	1	180	70	NA	34900	1010000	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Benzo(K)Fluoranthene	0.5	1	250	75	NA	349000	1010000	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Benzoic Acid	0.5	1	880	300	NA	1000000000	—	ug/kg
CW41-001	2087163.44	749648.07	Cadmium	0.5	0.67	2.6	0.047	1.61	962	—	mg/kg
CW41-001	2087163.44	749648.07	Cadmium	0.5	2.5	3.5	0.053	1.7	962	—	mg/kg
CV40-002	2087119.05	749442.72	Chrysene	0.5	2.5	87	54	NA	3490000	—	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Chrysene	0.5	1	340	38	NA	3490000	—	ug/kg
CV43-000	2087134.6	749980.95	Copper	0.5	1	36.9	0.16	18.06	40900	—	mg/kg
CW43-000	2087145.35	749981.91	Copper	0.5	2.5	27.3	0.16	18.06	40900	—	mg/kg
CW43-001	2087140.61	749975.88	Copper	0.5	2.5	31.3	0.15	18.06	40900	—	mg/kg
CW41-001	2087163.44	749648.07	Fluoranthene	0.5	0.667	89	86	NA	27200000	—	ug/kg
CV40-002	2087119.05	749442.72	Fluoranthene	0.5	2.5	180	86	NA	27200000	—	ug/kg
STEP OUT 3 - A	2087116.33	749635.15	Fluoranthene	0.5	2.5	240	43	NA	27200000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Fluoranthene	0.5	1	230	42	NA	27200000	—	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Fluoranthene	0.5	1	640	43	NA	27200000	—	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Fluorene	0.5	1	98	60	NA	40800000	—	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Indeno(1,2,3-Cd)Pyrene	0.5	1	150	49	NA	34900	—	ug/kg
CV43-000	2087134.6	749980.95	Iron	0.5	1	21900	1.5	18037	307000	—	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW43-000	2087145.35	749981.91	Iron	0.5	1	18600	1.5	18037	307000	—	mg/kg
CW43-001	2087140.61	749975.88	Iron	0.5	2.5	20300	1.4	18037	307000	—	mg/kg
CV43-001	2087135.47	749967.93	Lithium	0.5	1	12	0.17	11.55	20400	—	mg/kg
CW43-000	2087145.35	749981.91	Lithium	0.5	2.5	13.4	0.18	11.55	20400	—	mg/kg
CW43-001	2087140.61	749975.88	Lithium	0.5	2.5	12.5	0.17	11.55	20400	—	mg/kg
CW43-002	2087147.12	749969.73	Lithium	0.5	2.5	12	0.17	11.55	20400	—	mg/kg
CW40-004	2087204.29	749479.75	Lithium	0.5	2.5	11.9	0.18	11.55	20400	—	mg/kg
CV43-000	2087134.6	749980.95	Manganese	0.5	1	436	0.033	365.08	3480	—	mg/kg
CW43-001	2087140.61	749975.88	Manganese	0.5	2.5	392	0.033	365.08	3480	—	mg/kg
CW40-004	2087204.29	749479.75	Mercury	0.5	2.5	0.16	0.0013	0.13	25200	—	mg/kg
CW41-001	2087163.44	749648.07	Mercury	0.5	2.5	0.15	0.0012	0.13	25200	—	mg/kg
DD39-000	2088620.52	749244.49	Methylene Chloride	0.5	2.5	2.1	0.97	NA	2530000	39500	ug/kg
DF40-000	2089088.49	749473.32	Methylene Chloride	0.5	2.5	1.8	0.87	NA	2530000	39500	ug/kg
DG41-000	2089312.89	749743.2	Methylene Chloride	0.5	2.5	2	0.84	NA	2530000	39500	ug/kg
DH43-000	2089365.3	749991.19	Methylene Chloride	0.5	2.5	2	0.81	NA	2530000	39500	ug/kg
DC39-000	2088448.57	749186.75	Methylene Chloride	0.5	2.5	1.8	0.86	NA	2530000	39500	ug/kg
STEP OUT 1 - B	2087034.21	749626.36	Methylene Chloride	0.5	2.5	1.7	0.83	NA	2530000	39500	ug/kg
STEP OUT 1 - C	2087034.21	749626.36	Methylene Chloride	0.5	2.5	1.6	0.88	NA	2530000	39500	ug/kg
STEP OUT 1 - D	2087034.21	749626.36	Methylene Chloride	0.5	2.5	1.6	0.87	NA	2530000	39500	ug/kg
STEP OUT 1 - E	2087034.21	749626.36	Methylene Chloride	0.5	2.5	1.9	0.94	NA	2530000	39500	ug/kg
STEP OUT 2 - B	2087079.97	749636.97	Methylene Chloride	0.5	2.5	1.8	0.84	NA	2530000	39500	ug/kg
STEP OUT 2 - C	2087079.97	749636.97	Methylene Chloride	1	3	1.7	0.83	NA	2530000	39500	ug/kg
DB43-001	2088226.91	749963.51	Methylene Chloride	1	3	3.7	0.87	NA	2530000	39500	ug/kg
DD40-000	2088585.28	749572.23	Methylene Chloride	1	3	2.5	0.85	NA	2530000	39500	ug/kg
DB41-000	2088280.51	749574.27	Methylene Chloride	1	3	2.2	0.88	NA	2530000	39500	ug/kg
DB43-000	2088219.15	750163.83	Methylene Chloride	1	3	3.7	0.86	NA	2530000	39500	ug/kg
DC40-000	2088396.73	749412.32	Methylene Chloride	1	3	3.1	0.89	NA	2530000	39500	ug/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DC41-000	2088426.17	749715.79	Methylene Chloride	1	3	3.6	0.91	NA	2530000	39500	ug/kg
DC42-000	2088478.64	749918.1	Methylene Chloride	1	3	3.8	0.89	NA	2530000	39500	ug/kg
DD42-000	2088664.41	749777.16	Methylene Chloride	1	3	3.1	0.83	NA	2530000	39500	ug/kg
DD43-001	2088550.71	750003.07	Methylene Chloride	1	3	3.4	0.98	NA	2530000	39500	ug/kg
DE40-000	2088809.06	749552.11	Methylene Chloride	1	3	4.2	0.85	NA	2530000	39500	ug/kg
DG41-001	2089248.07	749648.4	Methylene Chloride	1	3	3.1	0.96	NA	2530000	39500	ug/kg
CV41-003	2087050.64	749597.05	Methylene Chloride	1	3	3.7	0.86	NA	2530000	39500	ug/kg
CV41-005	2087086.22	749593.02	Methylene Chloride	1	3	4.6	0.96	NA	2530000	39500	ug/kg
CV41-001	2086994.24	749570.86	Methylene Chloride	1	3	1.1	0.81	NA	2530000	39500	ug/kg
CV41-003	2087050.64	749597.05	Methylene Chloride	1	3	3.9	0.89	NA	2530000	39500	ug/kg
CV41-005	2087086.22	749593.02	Methylene Chloride	1	3	4.9	0.98	NA	2530000	39500	ug/kg
CV41-000	2086966.71	749584.29	Methylene Chloride	1	3	1.4	0.89	NA	2530000	39500	ug/kg
CV41-001	2086994.24	749570.86	Methylene Chloride	1	3	0.87	0.83	NA	2530000	39500	ug/kg
CV41-003	2087050.64	749597.05	Methylene Chloride	1	3	3.6	0.82	NA	2530000	39500	ug/kg
CV41-005	2087086.22	749593.02	Methylene Chloride	1	3	4.3	0.98	NA	2530000	39500	ug/kg
CV41-000	2086966.71	749584.29	Methylene Chloride	1	3	1.4	0.86	NA	2530000	39500	ug/kg
CV41-003	2087050.64	749597.05	Methylene Chloride	1	3	3.2	0.83	NA	2530000	39500	ug/kg
CV41-004	2087073.47	749619.88	Methylene Chloride	1	3	1.1	0.95	NA	2530000	39500	ug/kg
CV41-005	2087086.22	749593.02	Methylene Chloride	1	3	3.7	0.85	NA	2530000	39500	ug/kg
CV41-000	2086966.71	749584.29	Methylene Chloride	1	3	1.3	0.85	NA	2530000	39500	ug/kg
CV41-001	2086994.24	749570.86	Methylene Chloride	1	3	0.99	0.82	NA	2530000	39500	ug/kg
CV41-003	2087050.64	749597.05	Methylene Chloride	1	3	4.5	0.83	NA	2530000	39500	ug/kg
CV41-005	2087086.22	749593.02	Methylene Chloride	1	3	3.5	0.88	NA	2530000	39500	ug/kg
CW40-004	2087204.29	749479.75	Methylene Chloride	1	3	0.93	0.86	NA	2530000	39500	ug/kg
CW41-000	2087142.62	749618.53	Methylene Chloride	1	3	0.99	0.96	NA	2530000	39500	ug/kg
CW41-000	2087142.62	749618.53	Methylene Chloride	2.5	4.5	0.99	0.89	NA	2530000	39500	ug/kg
CW41-002	2087178.88	749622.56	Methylene Chloride	2.5	4.5	1.6	0.89	NA	2530000	39500	ug/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW41-000	2087142.62	749618.53	Methylene Chloride	2.5	4.5	0.93	0.82	NA	2530000	39500	ug/kg
CW41-002	2087178.88	749622.56	Methylene Chloride	2.5	4.5	1.5	0.86	NA	2530000	39500	ug/kg
CW43-000	2087145.35	749981.91	Methylene Chloride	2.5	4.5	0.94	0.82	NA	2530000	39500	ug/kg
BW52-000	2082012.8	751772.3	Methylene Chloride	2.5	4.5	1.5	0.8	NA	2530000	39500	ug/kg
BW52-000	2082012.8	751772.3	Methylene Chloride	2.5	4.5	1.6	0.81	NA	2530000	39500	ug/kg
CW40-001	2087145.33	749448.88	Methylene Chloride	2.5	4.5	0.95	0.9	NA	2530000	39500	ug/kg
CW40-002	2087173.08	749468.3	Methylene Chloride	2.5	4.5	1.1	0.97	NA	2530000	39500	ug/kg
CW40-001	2087145.33	749448.88	Methylene Chloride	2.5	4.5	0.9	0.83	NA	2530000	39500	ug/kg
CV41-006	2087106.37	749621.22	Methylene Chloride	2.5	4.5	2.2	0.87	NA	2530000	39500	ug/kg
CV41-006	2087106.37	749621.22	Methylene Chloride	2.5	4.5	0.84	0.83	NA	2530000	39500	ug/kg
CV41-006	2087106.37	749621.22	Methylene Chloride	2.5	4.5	1	0.84	NA	2530000	39500	ug/kg
CW41-001	2087163.44	749648.07	Methylene Chloride	2.5	4.5	1.1	0.87	NA	2530000	39500	ug/kg
CW41-001	2087163.44	749648.07	Methylene Chloride	2.5	4.5	1.1	0.86	NA	2530000	39500	ug/kg
CW41-001	2087163.44	749648.07	Methylene Chloride	2.5	4.5	1.2	0.83	NA	2530000	39500	ug/kg
CW41-001	2087178.88	749648.07	Methylene Chloride	2.5	4.5	1.2	0.9	NA	2530000	39500	ug/kg
CW41-001	2087163.44	749648.07	Methylene Chloride	2.5	4.5	1.4	0.85	NA	2530000	39500	ug/kg
STEP OUT 3 - B	2087116.33	749635.15	Methylene Chloride	2.5	4.5	1.3	0.86	NA	2530000	39500	ug/kg
STEP OUT 3 - C	2087116.33	749635.15	Methylene Chloride	2.5	4.5	1.7	0.85	NA	2530000	39500	ug/kg
STEP OUT 3 - D	2087116.33	749635.15	Methylene Chloride	2.5	4.5	2	0.88	NA	2530000	39500	ug/kg
STEP OUT 3 - E	2087116.33	749635.15	Methylene Chloride	2.5	4.5	1.5	0.86	NA	2530000	39500	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Methylene Chloride	2.5	4.5	1.5	0.89	NA	2530000	39500	ug/kg
STEP OUT 4 - C	2087113.72	749616.62	Methylene Chloride	2.5	4.5	1.7	0.93	NA	2530000	39500	ug/kg
STEP OUT 4 - D	2087113.72	749616.62	Methylene Chloride	2.5	4.5	1.7	0.92	NA	2530000	39500	ug/kg
STEP OUT 4 - E	2087113.72	749616.62	Methylene Chloride	2.5	4.5	1.7	0.88	NA	2530000	39500	ug/kg
STEP OUT 4 - F	2087113.72	749616.62	Methylene Chloride	2.5	4.5	1.5	0.87	NA	2530000	39500	ug/kg
CW41-002	2087178.88	749622.56	Molybdenum	0.5	1	0.53	0.13	NA	5110	—	mg/kg
CV43-000	2087134.6	749980.95	Molybdenum	0.5	1	0.26	0.14	NA	5110	—	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW43-000	2087145.35	749981.91	Molybdenum	0.5	1	0.16	0.14	NA	5110	—	mg/kg
CW43-001	2087140.61	749975.88	Molybdenum	0.5	2.5	0.4	0.13	NA	5110	—	mg/kg
CW40-002	2087173.08	749468.3	Molybdenum	0.5	2.5	0.22	0.14	NA	5110	—	mg/kg
DB44-000	2088317.84	750231.3	Molybdenum	2.5	4.5	0.31	0.14	NA	5110	—	mg/kg
DC39-000	2088448.57	749186.75	Molybdenum	2.5	4.5	0.36	0.14	NA	5110	—	mg/kg
CW40-004	2087204.29	749479.75	Nickel	0.5	2.5	15.1	0.69	14.91	20400	—	mg/kg
CW41-001	2087163.44	749648.07	Nickel	0.5	2.5	15.7	0.65	14.91	20400	—	mg/kg
CV43-000	2087134.6	749980.95	Nickel	0.5	1	28.3	0.66	14.91	20400	—	mg/kg
CW43-000	2087145.35	749981.91	Nickel	0.5	1	20.5	0.66	14.91	20400	—	mg/kg
CW43-001	2087140.61	749975.88	Nickel	0.5	2.5	21.7	0.64	14.91	20400	—	mg/kg
CW40-003	2087207.75	749457.21	Nickel	0.5	2.5	15.6	0.65	14.91	20400	—	mg/kg
CW40-004	2087204.29	749479.75	Nickel	0.5	2.5	17.3	0.68	14.91	20400	—	mg/kg
CV40-002	2087119.05	749442.72	N-Nitroso-Di-N-Propylamine	0.5	2.5	400	90	NA	5470	—	ug/kg
CW40-000	2087145.33	749448.88	Plutonium-239/240	0.5	1	4.13	4	0.05	50	3800	pCi/g
CW40-004	2087204.29	749479.75	Pyrene	0.5	2.5	48	44	NA	22100000	—	ug/kg
CW41-001	2087163.44	749648.07	Pyrene	0.5	0.667	79	41	NA	22100000	—	ug/kg
CV40-002	2087119.05	749442.72	Pyrene	0.5	2.5	150	41	NA	22100000	—	ug/kg
CV40-002	2087119.05	749442.72	Pyrene	0.5	2.5	46	42	NA	22100000	—	ug/kg
CW40-001	2087145.33	749448.88	Pyrene	0.5	1.25	65	44	NA	22100000	—	ug/kg
STEP OUT 3 - A	2087116.33	749635.15	Pyrene	0.5	2.5	240	62	NA	22100000	—	ug/kg
STEP OUT 4 - A	2087113.72	749616.62	Pyrene	0.5	1	230	61	NA	22100000	—	ug/kg
STEP OUT 4 - B	2087113.72	749616.62	Pyrene	0.5	1	640	62	NA	22100000	—	ug/kg
DD40-000	2088585.28	749572.23	Selenium	2.5	4.5	1.4	0.44	1.22	5110	—	mg/kg
DD42-000	2088664.41	749777.16	Selenium	3	5	1.9	0.43	1.22	5110	—	mg/kg
DE40-000	2088809.06	749552.11	Selenium	3	5	1.6	0.42	1.22	5110	—	mg/kg
DG41-A01	2089248.07	749648.4	Selenium	3	5	1.4	0.48	1.22	5110	—	mg/kg
CW40-004	2087204.29	749479.75	Silver	0.5	2.5	42.8	0.059	NA	5110	—	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV40-002	2087119.05	749442.72	Silver	0.5	2.5	0.79	0.055	NA	5110	—	mg/kg
CW40-001	2087145.33	749448.88	Silver	0.5	1	0.49	0.059	NA	5110	—	mg/kg
CW40-002	2087173.08	749468.3	Silver	0.5	1	1.5	0.058	NA	5110	—	mg/kg
CW40-003	2087207.75	749457.21	Silver	0.5	2.5	7.1	0.056	NA	5110	—	mg/kg
CW40-004	2087204.29	749479.75	Silver	0.5	2.5	19.9	0.058	NA	5110	—	mg/kg
CW40-004	2087204.29	749479.75	Strontium	0.5	2.5	165	0.0066	48.94	613000	—	mg/kg
CW41-001	2087163.44	749648.07	Strontium	0.5	2.5	69.6	0.0062	48.94	613000	—	mg/kg
CV43-000	2087134.6	749980.95	Strontium	0.5	1	84.2	0.0063	48.94	613000	—	mg/kg
CW43-000	2087145.35	749981.91	Strontium	0.5	1	53.1	0.0063	48.94	613000	—	mg/kg
CW43-001	2087140.61	749975.88	Strontium	0.5	2.5	56.1	0.0061	48.94	613000	—	mg/kg
CV43-000	2087134.6	749980.95	Tetrachloroethene	0.5	2.5	1.4	1.2	NA	615000	37500	ug/kg
CV43-001	2087135.47	749967.93	Tetrachloroethene	0.5	2.5	3.3	1	NA	615000	37500	ug/kg
CW41-000	2087142.62	749618.53	Tetrachloroethene	0.5	2.5	2.6	1.2	NA	615000	37500	ug/kg
CW41-000	2087142.62	749618.53	Tetrachloroethene	0.5	2.5	1.9	1.2	NA	615000	37500	ug/kg
CW43-001	2087140.61	749975.88	Tetrachloroethene	0.5	2.5	2	1.2	NA	615000	37500	ug/kg
BW52-000	2082012.8	751772.3	Tetrachloroethene	0.5	2.5	10	0.99	NA	615000	37500	ug/kg
BW52-000	2082012.8	751772.3	Tetrachloroethene	0.5	2.5	6.4	1.1	NA	615000	37500	ug/kg
BW52-000	2082012.8	751772.3	Tetrachloroethene	0.5	2.5	140	1.2	NA	615000	37500	ug/kg
CV41-006	2087106.37	749621.22	Tetrachloroethene	0.5	2.5	5600	34	NA	615000	37500	ug/kg
CV41-006	2087106.37	749621.22	Tetrachloroethene	0.5	2.5	140	1.1	NA	615000	37500	ug/kg
CV41-006	2087106.37	749621.22	Tetrachloroethene	0.5	2.5	6100	34	NA	615000	37500	ug/kg
CW41-001	2087163.44	749648.07	Tetrachloroethene	0.5	2.5	17	1.1	NA	615000	37500	ug/kg
STEP OUT 3 - B	2087116.33	749635.15	Tetrachloroethene	0.5	2.5	1.4	1.1	NA	615000	37500	ug/kg
STEP OUT 3 - C	2087116.33	749635.15	Tetrachloroethene	0.5	2.5	75	1.1	NA	615000	37500	ug/kg
STEP OUT 3 - D	2087116.33	749635.15	Tetrachloroethene	0.5	2.5	210	1.1	NA	615000	37500	ug/kg
STEP OUT 4 - C	2087113.72	749616.62	Tetrachloroethene	0.5	2.5	1.7	1.2	NA	615000	37500	ug/kg
DB44-000	2088317.84	750231.3	Tin	2.5	4.5	2	0.3	NA	613000	—	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DC45-000	2088455.44	750459.28	Tin	2.5	4.5	2.2	0.3	NA	613000	—	mg/kg
DC43-000	2088442.46	750152.87	Tin	2.5	4.5	2.2	0.3	NA	613000	—	mg/kg
DD44-000	2088472.83	750275.17	Tin	2.5	4.5	1.9	0.3	NA	613000	—	mg/kg
DD39-000	2088620.52	749244.49	Tin	2.5	4.5	1.4	0.3	NA	613000	—	mg/kg
DF40-000	2089088.49	749473.32	Tin	2.5	4.5	1.4	0.3	NA	613000	—	mg/kg
DG41-000	2089312.89	749743.2	Tin	2.5	4.5	2.2	0.3	NA	613000	—	mg/kg
DH43-000	2089365.3	749991.19	Tin	2.5	4.5	1.8	0.29	NA	613000	—	mg/kg
DC39-000	2088448.57	749186.75	Tin	2.5	4.5	2.3	0.29	NA	613000	—	mg/kg
DD43-000	2088554.95	750249.97	Tin	2.5	4.5	2.1	0.3	NA	613000	—	mg/kg
DE42-000	2088837.41	749946.42	Tin	2.5	4.5	1.8	0.3	NA	613000	—	mg/kg
DF42-000	2089129.65	749906.57	Tin	2.5	4.5	2	0.29	NA	613000	—	mg/kg
DB39-001	2088323.82	749287.21	Tin	2.5	4.5	2.4	0.29	NA	613000	—	mg/kg
DB41-000	2088280.51	749574.27	Tin	2.5	4.5	1.9	0.29	NA	613000	—	mg/kg
DB43-000	2088219.15	750163.83	Tin	2.5	4.5	1.7	0.3	NA	613000	—	mg/kg
DB43-001	2088226.91	749963.51	Tin	2.5	4.5	2.2	0.3	NA	613000	—	mg/kg
DC40-000	2088396.73	749412.32	Tin	2.5	4.5	1.7	0.31	NA	613000	—	mg/kg
DC41-000	2088426.17	749715.79	Tin	2.5	4.5	1.8	0.31	NA	613000	—	mg/kg
DC42-000	2088478.64	749918.1	Tin	2.5	4.5	2.4	0.3	NA	613000	—	mg/kg
DD40-000	2088585.28	749572.23	Tin	2.5	4.5	2.7	0.31	NA	613000	—	mg/kg
DD42-000	2088664.41	749777.16	Tin	2.5	4.5	1.6	0.3	NA	613000	—	mg/kg
DD43-001	2088550.71	750003.07	Tin	3	5	1.5	0.31	NA	613000	—	mg/kg
DE40-000	2088809.06	749552.11	Tin	3	5	2.7	0.29	NA	613000	—	mg/kg
DF41-000	2089000.19	749737.05	Tin	3	5	2.3	0.3	NA	613000	—	mg/kg
DG41-A01	2089248.07	749648.4	Tin	3	5	1.8	0.34	NA	613000	—	mg/kg
CV41-001	2086994.24	749570.86	Tin	3	5	1.1	0.43	NA	613000	—	mg/kg
CV41-004	2087073.47	749619.88	Tin	3	5	1.3	0.42	NA	613000	—	mg/kg
CV41-006	2087106.37	749621.22	Tin	3	5	3.1	0.39	NA	613000	—	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-004	2087204.29	749479.75	Tin	3	5	2	0.42	NA	613000	—	mg/kg
CW41-000	2087142.62	749618.53	Tin	3	5	0.97	0.39	NA	613000	—	mg/kg
CW41-001	2087163.44	749648.07	Tin	3	5	3.1	0.39	NA	613000	—	mg/kg
CV43-000	2087134.6	749980.95	Tin	3	5	3.2	0.4	NA	613000	—	mg/kg
CV43-001	2087135.47	749967.93	Tin	3	5	2.9	0.39	NA	613000	—	mg/kg
CW43-000	2087145.35	749981.91	Tin	3	5	3	0.4	NA	613000	—	mg/kg
CW43-001	2087140.61	749975.88	Tin	3	5	3	0.39	NA	613000	—	mg/kg
CW43-002	2087147.12	749969.73	Tin	3	5	2.7	0.38	NA	613000	—	mg/kg
CV40-002	2087119.05	749442.72	Tin	3	5	2.4	0.39	NA	613000	—	mg/kg
CW40-001	2087145.33	749448.88	Tin	3	5	2.8	0.41	NA	613000	—	mg/kg
CW40-002	2087173.08	749468.3	Tin	3	5	2.7	0.41	NA	613000	—	mg/kg
CW40-003	2087207.75	749457.21	Tin	3	5	2.7	0.39	NA	613000	—	mg/kg
CW40-004	2087204.29	749479.75	Tin	3	5	3.3	0.41	NA	613000	—	mg/kg
BW52-000	2082012.8	751772.3	Trichloroethene	0.5	2.5	1.6	0.89	NA	19600	—	ug/kg
BW52-000	2082012.8	751772.3	Trichloroethene	0.5	2.5	7.8	0.93	NA	19600	509000	ug/kg
BW52-000	2082012.8	751772.3	Trichloroethene	0.5	2.5	1.1	1	NA	19600	509000	ug/kg
CV41-006	2087106.37	749621.22	Trichloroethene	0.5	2.5	100	34	NA	19600	509000	ug/kg
CV41-006	2087106.37	749621.22	Trichloroethene	0.5	2.5	3.9	0.95	NA	19600	509000	ug/kg
CV41-006	2087106.37	749621.22	Trichloroethene	0.5	0.67	89	34	NA	19600	509000	ug/kg
STEP OUT 3 - C	2087116.33	749635.15	Trichloroethene	0.5	2.5	2.2	0.92	NA	19600	509000	ug/kg
STEP OUT 3 - D	2087116.33	749635.15	Trichloroethene	0.5	2.5	12	0.96	NA	19600	509000	ug/kg
CV41-004	2087073.47	749619.88	Uranium	0.5	1	3.3	1.5	NA	2750	67.8	mg/kg
CV41-005	2087086.22	749593.02	Uranium	0.5	1	5.4	1.5	NA	2750	67.8	mg/kg
CW40-004	2087204.29	749479.75	Uranium	0.5	2.5	8	1.5	NA	2750	67.8	mg/kg
CW40-004	2087204.29	749479.75	Uranium	0.5	2.5	3	1.5	NA	2750	67.8	mg/kg
CW40-004	2087204.29	749479.75	Uranium	0.5	2.5	2.7	1.6	NA	2750	67.8	mg/kg
CW41-000	2087142.62	749618.53	Uranium	0.5	1	5.6	1.7	NA	2750	67.8	mg/kg

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW41-002	2087178.88	749622.56	Uranium	0.5	2.5	1.9	1.5	NA	2750	67.8	mg/kg
CW41-000	2087142.62	749618.53	Uranium	0.5	1	2.2	1.6	NA	2750	67.8	mg/kg
CW41-002	2087178.88	749622.56	Uranium	0.5	1	2.8	1.7	NA	2750	67.8	mg/kg
CW41-000	2087142.62	749618.53	Uranium	0.5	1	3.9	1.5	NA	2750	67.8	mg/kg
CW41-002	2087178.88	749622.56	Uranium	0.5	1.25	3.9	1.4	NA	2750	67.8	mg/kg
CW41-000	2087142.62	749618.53	Uranium	0.5	2.5	4.1	1.5	NA	2750	67.8	mg/kg
CW41-002	2087178.88	749622.56	Uranium	0.5	2.5	3	1.5	NA	2750	67.8	mg/kg
CW41-002	2087178.88	749622.56	Uranium	0.5	2.5	1.6	1.5	NA	2750	67.8	mg/kg
CW41-000	2087142.62	749618.53	Uranium-234	3	5	1.99	8	1.49	300	1800	pCi/g
CW41-000	2087142.62	749618.53	Uranium-234	3	5	3.05	8	1.49	300	1800	pCi/g
CW41-000	2087142.62	749618.53	Uranium-234	3	5	1.75	8	1.49	300	1800	pCi/g
CW41-000	2087142.62	749618.53	Uranium-234	3	5	1.63	8	1.49	300	1800	pCi/g
CV41-004	2087073.47	749619.88	Uranium-234	3	5	2.04	8	1.49	300	1800	pCi/g
CV41-004	2087073.47	749619.88	Uranium-234	3	5	2.31	8	1.49	300	1800	pCi/g
CW41-001	2087163.44	749648.07	Uranium-234	4.5	6.5	2.69	8	1.49	300	1800	pCi/g
CW41-001	2087163.44	749648.07	Uranium-234	4.5	6.5	4.01	8	1.49	300	1800	pCi/g
CV41-006	2087106.37	749621.22	Uranium-234	4.5	6.5	2.31	8	1.49	300	1800	pCi/g
CV41-006	2087106.37	749621.22	Uranium-234	4.5	6.5	2.79	8	1.49	300	1800	pCi/g
CV41-006	2087106.37	749621.22	Uranium-234	4.5	6.5	2.14	8	1.49	300	1800	pCi/g
CV41-006	2087106.37	749621.22	Uranium-234	4.5	6.5	4.2	8	1.49	300	1800	pCi/g
CW41-000	2087142.62	749618.53	Uranium-234	4.5	6.5	2.15	8	1.49	300	1800	pCi/g
CV41-004	2087073.47	749619.88	Uranium-234	4.5	6.5	2.03	8	1.49	300	1800	pCi/g
CV41-004	2087073.47	749619.88	Uranium-234	4.5	6.5	1.68	8	1.49	300	1800	pCi/g
CV41-004	2087073.47	749619.88	Uranium-234	4.5	6.5	2.94	8	1.49	300	1800	pCi/g
CV41-001	2086994.24	749570.86	Uranium-234	4.5	6.5	3.36	8	1.49	300	1800	pCi/g
CV41-001	2086994.24	749570.86	Uranium-234	4.5	6.5	2.17	8	1.49	300	1800	pCi/g
CV41-001	2086994.24	749570.86	Uranium-234	4.5	6.5	3.61	8	1.49	300	1800	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-001	2086994.24	749570.86	Uranium-234	4.5	6.5	2.87	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	4.5	6.5	2.2	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	4.5	6.5	2.63	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	4.5	6.5	2.22	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	4.5	6.5	2.22	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	4.5	6.5	4.61	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	4.5	6.5	2.6	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	4.5	6.5	3.95	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	4.5	6.5	3	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	4.5	6.5	6.24	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	4.5	6.5	4.29	8	1.49	300	1800	pCi/g
CW41-002	2087178.88	749622.56	Uranium-234	5	7	2.54	8	1.49	300	1800	pCi/g
CV41-000	2086966.71	749584.29	Uranium-234	5	7	5.86	8	1.49	300	1800	pCi/g
CV41-000	2086966.71	749584.29	Uranium-234	5	7	3.95	8	1.49	300	1800	pCi/g
CV41-000	2086966.71	749584.29	Uranium-234	5	7	5.11	8	1.49	300	1800	pCi/g
CV41-000	2086966.71	749584.29	Uranium-234	5	7	3.24	8	1.49	300	1800	pCi/g
CV41-000	2086966.71	749584.29	Uranium-234	5	7	4.11	8	1.49	300	1800	pCi/g
CV41-000	2086966.71	749584.29	Uranium-234	5	7	2.65	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	7.03	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	3.03	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	2.38	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	8.53	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	2.56	8	1.49	300	1800	pCi/g
CV40-000	2087080.79	749457.38	Uranium-234	5	7	1.5	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	2.03	8	1.49	300	1800	pCi/g
CV41-002	2087015.06	749599.73	Uranium-234	5	7	2.03	8	1.49	351	1800	pCi/g
CV41-003	2087050.64	749597.05	Uranium-234	5	7	2.01	8	1.49	300	1800	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-003	2087050.64	749597.05	Uranium-234	5	7	3.31	8	1.49	300	1800	pCi/g
CV41-003	2087050.64	749597.05	Uranium-234	5	7	2.48	8	1.49	300	1800	pCi/g
CV41-003	2087050.64	749597.05	Uranium-234	5	7	3.32	8	1.49	300	1800	pCi/g
CV41-003	2087050.64	749597.05	Uranium-234	6.5	8.5	3.76	8	1.49	300	1800	pCi/g
CV41-003	2087050.64	749597.05	Uranium-234	6.5	8.5	3.45	8	1.49	300	1800	pCi/g
CV41-005	2087086.22	749593.02	Uranium-234	6.5	8.5	1.55	8	1.49	300	1800	pCi/g
CV40-001	2087106.49	749480.09	Uranium-234	6.5	8.5	3.56	8	1.49	300	1800	pCi/g
CV40-001	2087106.49	749480.09	Uranium-234	6.5	8.5	2.77	8	1.49	300	1800	pCi/g
CV40-001	2087106.49	749480.09	Uranium-234	6.5	8.5	5.71	8	1.49	300	1800	pCi/g
CV40-001	2087106.49	749480.09	Uranium-234	6.5	8.5	3.83	8	1.49	300	1800	pCi/g
CV40-000	2087080.79	749457.38	Uranium-234	6.5	8.5	3.75	8	1.49	300	1800	pCi/g
CV40-000	2087080.79	749457.38	Uranium-234	6.5	8.5	3.17	8	1.49	300	1800	pCi/g
CV40-000	2087080.79	749457.38	Uranium-234	6.5	8.5	5.38	8	1.49	300	1800	pCi/g
CV40-000	2087080.79	749457.38	Uranium-234	6.5	8.5	4.38	8	1.49	300	1800	pCi/g
CV40-000	2087080.79	749457.38	Uranium-234	6.5	8.5	2.75	8	1.49	300	1800	pCi/g
CW40-002	2087173.08	749468.3	Uranium-234	6.5	8.5	6.97	8	1.49	300	1800	pCi/g
CW40-002	2087173.08	749468.3	Uranium-234	6.5	8.5	3.49	8	1.49	300	1800	pCi/g
CW40-002	2087173.08	749468.3	Uranium-234	6.5	8.5	4.33	8	1.49	300	1800	pCi/g
CW40-002	2087173.08	749468.3	Uranium-234	6.5	8.5	4.64	8	1.49	300	1800	pCi/g
CW40-002	2087173.08	749468.3	Uranium-234	6.5	8.5	3.19	8	1.49	300	1800	pCi/g
CW40-002	2087173.08	749468.3	Uranium-234	6.5	8.5	3.78	8	1.49	300	1800	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	7	9	4.7	8	1.49	300	1800	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	7	9	4.37	8	1.49	300	1800	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	7	9	4.49	8	1.49	300	1800	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	7	9	7.59	8	1.49	300	1800	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	7	9	5.13	8	1.49	300	1800	pCi/g
CW40-001	2087145.33	749448.88	Uranium-234	7	9	4.31	8	1.49	300	1800	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV40-002	2087119.05	749442.72	Uranium-234	7	9	4.68	8	1.49	300	1800	pCi/g
CV40-002	2087119.05	749442.72	Uranium-234	7	9	3.89	8	1.49	300	1800	pCi/g
CV40-002	2087119.05	749442.72	Uranium-234	7	9	4.19	8	1.49	300	1800	pCi/g
CV40-002	2087119.05	749442.72	Uranium-234	7	9	2.21	8	1.49	300	1800	pCi/g
CV40-002	2087119.05	749442.72	Uranium-234	7	9	7.18	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	7	9	4.24	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	8.5	10.5	2.6	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	8.5	10	4.1	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	8.5	10.5	2.3	8	1.49	300	1800	pCi/g
CW40-004	2087204.29	749479.75	Uranium-234	8.5	10.5	3.04	8	1.49	300	1800	pCi/g
CW41-001	2087163.44	749648.07	Uranium-234	8.5	10.5	1.6	8	1.49	300	1800	pCi/g
DB44-000	2088317.84	750231.3	Uranium-234	8.5	10.5	2.7	8	1.49	300	1800	pCi/g
DC45-000	2088455.44	750459.28	Uranium-234	8.5	10.5	2.84	8	1.49	300	1800	pCi/g
DF42-000	2089129.65	749906.57	Uranium-234	9	11	2.26	8	1.49	300	1800	pCi/g
DD42-000	2088664.41	749777.16	Uranium-234	9	11	2.86	8	1.49	300	1800	pCi/g
DB43-000	2088219.15	750163.83	Uranium-234	9	11	2.76	8	1.49	300	1800	pCi/g
DF41-000	2089000.19	749737.05	Uranium-234	9	11	2.16	8	1.49	300	1800	pCi/g
DD43-001	2088550.71	750003.07	Uranium-234	10.5	12.5	2.72	8	1.49	300	1800	pCi/g
DC42-000	2088478.64	749918.1	Uranium-234	12.5	14.5	2.61	8	1.49	300	1800	pCi/g
DB41-000	2088280.51	749574.27	Uranium-234	24.6	25.6	2.65	8	1.49	300	1800	pCi/g
CW41-000	2087142.62	749618.53	Uranium-235	3	5	0.131	1	0.12	8	1900	pCi/g
CW41-000	2087142.62	749618.53	Uranium-235	3	5	0.154	1	0.12	8	1900	pCi/g
CW41-000	2087142.62	749618.53	Uranium-235	3	5	0.125	1	0.12	8	1900	pCi/g
CV41-004	2087073.47	749619.88	Uranium-235	3	5	0.203	1	0.12	8	1900	pCi/g
CW41-001	2087163.44	749648.07	Uranium-235	4.5	6.5	0.232	1	0.12	8	1900	pCi/g
CW41-001	2087163.44	749648.07	Uranium-235	4.5	6.5	0.146	1	0.12	8	1900	pCi/g
CV41-006	2087106.37	749621.22	Uranium-235	4.5	6.5	0.231	1	0.12	8	1900	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-006	2087106.37	749621.22	Uranium-235	4.5	6.5	0.324	1	0.12	8	1900	pCi/g
CV41-006	2087106.37	749621.22	Uranium-235	4.5	6.5	0.279	1	0.12	8	1900	pCi/g
CV41-006	2087106.37	749621.22	Uranium-235	4.5	6.5	0.176	1	0.12	8	1900	pCi/g
CV41-006	2087106.37	749621.22	Uranium-235	4.5	6.5	0.191	1	0.12	8	1900	pCi/g
CW41-000	2087142.62	749618.53	Uranium-235	4.5	6.5	0.103	1	0.12	8	1900	pCi/g
CW41-000	2087142.62	749618.53	Uranium-235	4.5	6.5	0.124	1	0.12	8	1900	pCi/g
CV41-004	2087073.47	749619.88	Uranium-235	4.5	6.5	0.435	1	0.12	8	1900	pCi/g
CV41-004	2087073.47	749619.88	Uranium-235	4.5	6.5	0.285	1	0.12	8	1900	pCi/g
CV41-004	2087073.47	749619.88	Uranium-235	4.5	6.5	0.257	1	0.12	8	1900	pCi/g
CV41-004	2087073.47	749619.88	Uranium-235	4.5	6.5	0.236	1	0.12	8	1900	pCi/g
CV41-001	2086994.24	749570.86	Uranium-235	4.5	6.5	0.134	1	0.12	8	1900	pCi/g
CV41-001	2086994.24	749570.86	Uranium-235	4.5	6.5	0.168	1	0.12	8	1900	pCi/g
CV41-001	2086994.24	749570.86	Uranium-235	4.5	6.5	0.184	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	4.5	6.5	0.151	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	4.5	6.5	0.145	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	4.5	6.5	0.132	1	0.12	8	1900	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	4.5	6.5	0.146	1	0.12	8	1900	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	4.5	6.5	0.246	1	0.12	8	1900	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	4.5	6.5	0.278	1	0.12	8	1900	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	4.5	6.5	0.182	1	0.12	8	1900	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	4.5	6.5	0.395	1	0.12	8	1900	pCi/g
CW41-002	2087178.88	749622.56	Uranium-235	5	7	0.303	1	0.12	8	1900	pCi/g
CV41-000	2086966.71	749584.29	Uranium-235	5	7	0.422	1	0.12	8	1900	pCi/g
CV41-000	2086966.71	749584.29	Uranium-235	5	7	0.244	1	0.12	8	1900	pCi/g
CV41-000	2086966.71	749584.29	Uranium-235	5	7	0.334	1	0.12	8	1900	pCi/g
CV41-000	2086966.71	749584.29	Uranium-235	5	7	0.276	1	0.12	8	1900	pCi/g
CV41-000	2086966.71	749584.29	Uranium-235	5	7	0.245	1	0.12	8	1900	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-000	2086966.71	749584.29	Uranium-235	5	7	0.354	1	0.12	8	1900	pCi/g
CV41-002	2087015.06	749599.73	Uranium-235	5	7	0.248	1	0.12	8	1900	pCi/g
CV41-002	2087015.06	749599.73	Uranium-235	5	7	0.206	1	0.12	8	1900	pCi/g
CV41-002	2087015.06	749599.73	Uranium-235	5	7	0.25	1	0.12	8	1900	pCi/g
CV41-002	2087015.06	749599.73	Uranium-235	5	7	0.162	1	0.12	8	1900	pCi/g
CV41-002	2087015.06	749599.73	Uranium-235	5	7	0.224	1	0.12	8	1900	pCi/g
CV41-002	2087015.06	749599.73	Uranium-235	5	7	0.166	1	0.12	8	1900	pCi/g
CV41-003	2087050.64	749597.05	Uranium-235	5	7	0.182	1	0.12	8	1900	pCi/g
CV41-003	2087050.64	749597.05	Uranium-235	5	7	0.205	1	0.12	8	1900	pCi/g
CV41-003	2087050.64	749597.05	Uranium-235	5	7	0.207	1	0.12	8	1900	pCi/g
CV41-003	2087050.64	749597.05	Uranium-235	6.5	8.5	0.222	1	0.12	8	1900	pCi/g
CV41-003	2087050.64	749597.05	Uranium-235	6.5	8.5	0.239	1	0.12	8	1900	pCi/g
CV41-003	2087050.64	749597.05	Uranium-235	6.5	8.5	0.25	1	0.12	8	1900	pCi/g
CV41-005	2087086.22	749593.02	Uranium-235	6.5	8.5	0.142	1	0.12	8	1900	pCi/g
CV40-001	2087106.49	749480.09	Uranium-235	6.5	8.5	0.124	1	0.12	8	1900	pCi/g
CV40-001	2087106.49	749480.09	Uranium-235	6.5	8.5	0.257	1	0.12	8	1900	pCi/g
CV40-001	2087106.49	749480.09	Uranium-235	6.5	8.5	0.29	1	0.12	8	1900	pCi/g
CV40-001	2087106.49	749480.09	Uranium-235	6.5	8.5	0.351	1	0.12	8	1900	pCi/g
CV40-001	2087106.49	749480.09	Uranium-235	6.5	8.5	0.211	1	0.12	8	1900	pCi/g
CV40-000	2087080.79	749457.38	Uranium-235	6.5	8.5	0.318	1	0.12	8	1900	pCi/g
CV40-000	2087080.79	749457.38	Uranium-235	6.5	8.5	0.192	1	0.12	8	1900	pCi/g
CV40-000	2087080.79	749457.38	Uranium-235	6.5	8.5	0.249	1	0.12	8	1900	pCi/g
CV40-000	2087080.79	749457.38	Uranium-235	6.5	8.5	0.147	1	0.12	8	1900	pCi/g
CV40-000	2087080.79	749457.38	Uranium-235	6.5	8.5	0.263	1	0.12	8	1900	pCi/g
CW40-000	2087139.09	749477.67	Uranium-235	6.5	8.5	0.123	1	0.12	8	1900	pCi/g
CV40-000	2087080.79	749457.38	Uranium-235	6.5	8.5	0.125	1	0.12	8	1900	pCi/g
CW40-000	2087139.09	749477.67	Uranium-235	6.5	8.5	0.128	1	0.12	8	1900	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-000	2087139.09	749477.67	Uranium-235	6.5	8.5	0.131	1	0.12	8	1900	pCi/g
CW40-002	2087173.08	749468.3	Uranium-235	6.5	8.5	0.238	1	0.12	8	1900	pCi/g
CW40-002	2087173.08	749468.3	Uranium-235	6.5	8.5	0.354	1	0.12	8	1900	pCi/g
CW40-002	2087173.08	749468.3	Uranium-235	6.5	8.5	0.22	1	0.12	8	1900	pCi/g
CW40-002	2087173.08	749468.3	Uranium-235	6.5	8.5	0.194	1	0.12	8	1900	pCi/g
CW40-002	2087173.08	749468.3	Uranium-235	6.5	8.5	0.218	1	0.12	8	1900	pCi/g
CW40-002	2087173.08	749468.3	Uranium-235	6.8	8.5	0.274	1	0.12	8	1900	pCi/g
CW40-001	2087145.33	749448.88	Uranium-235	7	9	0.313	1	0.12	8	1900	pCi/g
CW40-001	2087145.33	749448.88	Uranium-235	7	9	0.262	1	0.12	8	1900	pCi/g
CW40-001	2087145.33	749448.88	Uranium-235	7	9	0.272	1	0.12	8	1900	pCi/g
CW40-001	2087145.33	749448.88	Uranium-235	7	9	0.173	1	0.12	8	1900	pCi/g
CV40-002	2087119.05	749442.72	Uranium-235	7	9	0.217	1	0.12	8	1900	pCi/g
CV40-002	2087119.05	749442.72	Uranium-235	7	9	0.251	1	0.12	8	1900	pCi/g
CV40-002	2087119.05	749442.72	Uranium-235	7	9	0.314	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	7	9	0.439	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	8.5	10.5	0.397	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	8.5	10.5	0.161	1	0.12	8	1900	pCi/g
CW40-004	2087204.29	749479.75	Uranium-235	8.5	10.5	0.188	1	0.12	8	1900	pCi/g
CW40-003	2087207.75	749457.21	Uranium-235	8.5	10.5	0.169	1	0.12	8	1900	pCi/g
CW40-003	2087207.75	749457.21	Uranium-235	8.5	10	0.122	1	0.12	8	1900	pCi/g
DD40-000	2088585.28	749572.23	Uranium-235	8.5	10.5	0.197	1	0.12	8	1900	pCi/g
DB39-001	2088323.82	749287.21	Uranium-235	8.5	10.5	0.171	1	0.12	8	1900	pCi/g
CW41-001	2087163.44	749648.07	Uranium-235	8.5	10.5	0.132	1	0.12	8	1900	pCi/g
DD43-000	2088554.95	750249.97	Uranium-235	8.5	10.5	0.178	1	0.12	8	1900	pCi/g
DB44-000	2088317.84	750231.3	Uranium-235	8.5	10.5	0.174	1	0.12	8	1900	pCi/g
DC43-000	2088442.46	750152.87	Uranium-235	8.5	10.5	0.125	1	0.12	8	1900	pCi/g
DD44-000	2088472.83	750275.17	Uranium-235	8.5	9.5	0.156	1	0.12	8	1900	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
DF40-000	2089088.49	749473.32	Uranium-235	9	11	0.11	1	0.12	8	1900	pCi/g
DG41-000	2089312.89	749743.2	Uranium-235	9	11	0.211	1	0.12	8	1900	pCi/g
DH43-000	2089365.3	749991.19	Uranium-235	9	11	0.228	1	0.12	8	1900	pCi/g
DF42-000	2089129.65	749906.57	Uranium-235	9	11	0.151	1	0.12	8	1900	pCi/g
DB43-001	2088226.91	749963.51	Uranium-235	9	11	0.24	1	0.12	8	1900	pCi/g
DD42-000	2088664.41	749777.16	Uranium-235	9	11	0.0948	1	0.12	8	1900	pCi/g
DB43-000	2088219.15	750163.83	Uranium-235	9	11	0.211	1	0.12	8	1900	pCi/g
DF41-000	2089000.19	749737.05	Uranium-235	9	11	0.161	1	0.12	8	1900	pCi/g
DD43-001	2088550.71	750003.07	Uranium-235	9	11	0.15	1	0.12	8	1900	pCi/g
DC42-000	2088478.64	749918.1	Uranium-235	10.5	12.5	0.233	1	0.12	8	1900	pCi/g
DC41-000	2088426.17	749715.79	Uranium-235	12.5	14.5	0.148	1	0.12	8	1900	pCi/g
CW41-000	2087142.62	749618.53	Uranium-238	3	5	1.99	8	1.49	351	1600	pCi/g
CW41-000	2087142.62	749618.53	Uranium-238	3	5	3.05	8	1.49	351	1600	pCi/g
CW41-000	2087142.62	749618.53	Uranium-238	3	5	1.75	8	1.49	351	1600	pCi/g
CW41-000	2087142.62	749618.53	Uranium-238	3	5	1.63	8	1.49	351	1600	pCi/g
CV41-004	2087073.47	749619.88	Uranium-238	3	5	2.04	8	1.49	351	1600	pCi/g
CV41-004	2087073.47	749619.88	Uranium-238	3	5	2.31	8	1.49	351	1600	pCi/g
CW41-001	2087163.44	749648.07	Uranium-238	4.5	6.5	2.69	8	1.49	351	1600	pCi/g
CW41-001	2087163.44	749648.07	Uranium-238	4.5	6.5	4.01	8	1.49	351	1600	pCi/g
CV41-006	2087106.37	749621.22	Uranium-238	4.5	6.5	2.31	8	1.49	351	1600	pCi/g
CV41-006	2087106.37	749621.22	Uranium-238	4.5	6.5	2.79	8	1.49	351	1600	pCi/g
CV41-006	2087106.37	749621.22	Uranium-238	4.5	6.5	2.14	8	1.49	351	1600	pCi/g
CV41-006	2087106.37	749621.22	Uranium-238	4.5	6.5	4.2	8	1.49	351	1600	pCi/g
CW41-000	2087142.62	749618.53	Uranium-238	4.5	6.5	2.15	8	1.49	351	1600	pCi/g
CV41-004	2087073.47	749619.88	Uranium-238	4.5	6.5	2.03	8	1.49	351	1600	pCi/g
CV41-004	2087073.47	749619.88	Uranium-238	4.5	6.5	1.68	8	1.49	351	1600	pCi/g
CV41-004	2087073.47	749619.88	Uranium-238	4.5	6.5	2.94	8	1.49	351	1600	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-001	2086994.24	749570.86	Uranium-238	4.5	6.5	3.36	8	1.49	351	1600	pCi/g
CV41-001	2086994.24	749570.86	Uranium-238	4.5	6.5	2.17	8	1.49	351	1600	pCi/g
CV41-001	2086994.24	749570.86	Uranium-238	4.5	6.5	3.61	8	1.49	351	1600	pCi/g
CV41-001	2086994.24	749570.86	Uranium-238	4.5	6.5	2.87	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	4.5	6.5	2.2	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	4.5	6.5	2.63	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	4.5	6.5	2.22	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	4.5	6.5	2.22	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	4.5	6.5	4.61	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	4.5	6.5	2.6	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	4.5	6.5	3.95	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	4.5	6.5	3	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	4.5	6.5	6.24	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	4.5	6.5	4.29	8	1.49	351	1600	pCi/g
CW41-002	2087178.88	749622.56	Uranium-238	5	7	2.54	8	1.49	351	1600	pCi/g
CV41-000	2086966.71	749584.29	Uranium-238	5	7	5.86	8	1.49	351	1600	pCi/g
CV41-000	2086966.71	749584.29	Uranium-238	5	7	3.95	8	1.49	351	1600	pCi/g
CV41-000	2086966.71	749584.29	Uranium-238	5	7	5.11	8	1.49	351	1600	pCi/g
CV41-000	2086966.71	749584.29	Uranium-238	5	7	3.24	8	1.49	351	1600	pCi/g
CV41-000	2086966.71	749584.29	Uranium-238	5	7	4.11	8	1.49	351	1600	pCi/g
CV41-000	2086966.71	749584.29	Uranium-238	5	7	2.65	8	1.49	351	1600	pCi/g
CV41-002	2087015.06	749599.73	Uranium-238	5	7	7.03	8	1.49	351	1600	pCi/g
CV41-002	2087015.06	749599.73	Uranium-238	5	7	3.03	8	1.49	351	1600	pCi/g
CV41-002	2087015.06	749599.73	Uranium-238	5	7	2.38	8	1.49	351	1600	pCi/g
CV41-002	2087015.06	749599.73	Uranium-238	5	7	8.53	8	1.49	351	1600	pCi/g
CV41-002	2087015.06	749599.73	Uranium-238	5	7	2.56	8	1.49	351	1600	pCi/g
CV40-000	2087080.79	749457.38	Uranium-238	5	7	1.5	8	1.49	351	1600	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV41-003	2087050.64	749597.05	Uranium-238	5	7	2.01	8	1.49	351	1600	pCi/g
CV41-003	2087050.64	749597.05	Uranium-238	5	7	3.31	8	1.49	351	1600	pCi/g
CV41-003	2087050.64	749597.05	Uranium-238	5	7	2.48	8	1.49	351	1600	pCi/g
CV41-003	2087050.64	749597.05	Uranium-238	5	7	3.32	8	1.49	351	1600	pCi/g
CV41-003	2087050.64	749597.05	Uranium-238	6.5	8.5	3.76	8	1.49	351	1600	pCi/g
CV41-003	2087050.64	749597.05	Uranium-238	6.5	8.5	3.45	8	1.49	351	1600	pCi/g
CV41-005	2087086.22	749593.02	Uranium-238	6.5	8.5	1.55	8	1.49	351	1600	pCi/g
CV40-001	2087106.49	749480.09	Uranium-238	6.5	8.5	3.56	8	1.49	351	1600	pCi/g
CV40-001	2087106.49	749480.09	Uranium-238	6.5	8.5	2.77	8	1.49	351	1600	pCi/g
CV40-001	2087106.49	749480.09	Uranium-238	6.5	8.5	5.71	8	1.49	351	1600	pCi/g
CV40-001	2087106.49	749480.09	Uranium-238	6.5	8.5	3.83	8	1.49	351	1600	pCi/g
CV40-000	2087080.79	749457.38	Uranium-238	6.5	8.5	3.75	8	1.49	351	1600	pCi/g
CV40-000	2087080.79	749457.38	Uranium-238	6.5	8.5	3.17	8	1.49	351	1600	pCi/g
CV40-000	2087080.79	749457.38	Uranium-238	6.5	8.5	5.38	8	1.49	351	1600	pCi/g
CV40-000	2087080.79	749457.38	Uranium-238	6.5	8.5	4.38	8	1.49	351	1600	pCi/g
CV40-000	2087080.79	749457.38	Uranium-238	6.5	8.5	2.75	8	1.49	351	1600	pCi/g
CW40-002	2087173.08	749468.3	Uranium-238	6.5	8.5	6.97	8	1.49	351	1600	pCi/g
CW40-002	2087173.08	749468.3	Uranium-238	6.5	8.5	3.49	8	1.49	351	1600	pCi/g
CW40-002	2087173.08	749468.3	Uranium-238	6.5	8.5	4.33	8	1.49	351	1600	pCi/g
CW40-002	2087173.08	749468.3	Uranium-238	6.5	8.5	4.64	8	1.49	351	1600	pCi/g
CW40-002	2087173.08	749468.3	Uranium-238	6.5	8.5	3.19	8	1.49	351	1600	pCi/g
CW40-002	2087173.08	749468.3	Uranium-238	6.5	8.5	3.78	8	1.49	351	1600	pCi/g
CW40-001	2087145.33	749448.88	Uranium-238	7	9	4.7	8	1.49	351	1600	pCi/g
CW40-001	2087145.33	749448.88	Uranium-238	7	9	4.37	8	1.49	351	1600	pCi/g
CW40-001	2087145.33	749448.88	Uranium-238	7	9	4.49	8	1.49	351	1600	pCi/g
CW40-001	2087145.33	749448.88	Uranium-238	7	9	7.59	8	1.49	351	1600	pCi/g
CW40-001	2087145.33	749448.88	Uranium-238	7	9	5.13	8	1.49	351	1600	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CW40-001	2087145.33	749448.88	Uranium-238	7	9	4.31	8	1.49	351	1600	pCi/g
CV40-002	2087119.05	749442.72	Uranium-238	7	9	4.68	8	1.49	351	1600	pCi/g
CV40-002	2087119.05	749442.72	Uranium-238	7	9	3.89	8	1.49	351	1600	pCi/g
CV40-002	2087119.05	749442.72	Uranium-238	7	9	4.19	8	1.49	351	1600	pCi/g
CV40-002	2087119.05	749442.72	Uranium-238	7	9	2.21	8	1.49	351	1600	pCi/g
CV40-002	2087119.05	749442.72	Uranium-238	7	9	7.18	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	7	9	4.24	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	8.5	10.5	2.6	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	8.5	10	4.1	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	8.5	10.5	2.3	8	1.49	351	1600	pCi/g
CW40-004	2087204.29	749479.75	Uranium-238	8.5	10.5	3.04	8	1.49	351	1600	pCi/g
CW41-001	2087163.44	749648.07	Uranium-238	8.5	10.5	1.6	8	1.49	351	1600	pCi/g
DB44-000	2088317.84	750231.3	Uranium-238	8.5	10.5	2.7	8	1.49	351	1600	pCi/g
DC45-000	2088455.44	750459.28	Uranium-238	8.5	10.5	2.84	8	1.49	351	1600	pCi/g
DF42-000	2089129.65	749906.57	Uranium-238	9	11	2.26	8	1.49	351	1600	pCi/g
DB43-000	2088219.15	750163.83	Uranium-238	9	11	2.76	8	1.49	351	1600	pCi/g
DF41-000	2089000.19	749737.05	Uranium-238	9	11	2.16	8	1.49	351	1600	pCi/g
DD43-001	2088550.71	750003.07	Uranium-238	10.5	12.5	2.72	8	1.49	351	1600	pCi/g
DC42-000	2088478.64	749918.1	Uranium-238	12.5	14.5	2.61	8	1.49	351	1600	pCi/g
DB41-000	2088280.51	749574.27	Uranium-238	24.6	25.6	2.65	8	1.49	351	1600	pCi/g
DD42-000	2088664.41	749777.16	Uranium-238	9	11	2.86	8	1.49	351	1600	pCi/g
CV40-001	2087106.49	749480.09	Uranium-234	6.5	8.5	4.79	8	1.49	300	1800	pCi/g
CV40-001	2087106.49	749480.09	Uranium-238	6.5	8.5	4.79	8	1.49	351	1600	pCi/g
CV40-001	2087106.49	749480.09	Uranium-234	6.5	8.5	4.79	8	1.49	300	1800	pCi/g
CV40-001	2087106.49	749480.09	Uranium-238	6.5	8.5	4.79	8	1.49	351	1600	pCi/g
CV41-004	2087073.47	749619.88	Urranium-234	4.5	6.5	1.93	8	1.49	300	1800	pCi/g
CV41-004	2087073.47	749619.88	Urranium-238	4.5	6.5	1.93	8	1.49	351	1600	pCi/g

Table 4
Subsurface Soil Results With RFCA ALs Greater Than Background Mean Plus Two Standard Deviations or Detection/Reporting Limits

Location	Easting	Northing	Analyte	Soil Begin Depth (feet)	Soil End Depth (feet)	Result	Detection/ Reporting Limit	Background Mean +2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
CV43-000	2087134.6	749980.95	Vanadium	0.5	2.5	58.1	0.25	45.59	7150	433	mg/kg
CW43-001	2087140.61	749975.88	Vanadium	0.5	2.5	46.1	0.25	45.59	7150	433	mg/kg

Table 5
IHSS Group NE/NW Surface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker	Ecological Receptor Action Level	Unit
1-Eicosanol	1	0.00%	320.00	320.00	-	-	-	-	-
2-Propanol, 1-Butoxy-	2	0.00%	240.00	250.00	-	-	-	-	-
2h-1-Benzopyran-2-One	1	0.00%	600.00	600.00	-	-	-	-	-
3-Penten-2-One, 4-Methyl-	1	0.00%	150.00	150.00	-	-	-	-	-
9,10-Anthracenedione	1	0.00%	260.00	260.00	-	-	-	-	-
Acenaphthene	1	100.00%	71.00	71.00	51.00	-	40800000	-	ug/kg
Americium-241	3	100.00%	0.93	1.05	0.62	0.02	76	1900	pci/g
Anthracene	3	100.00%	173.67	220.00	80.00	-	204000000	-	ug/kg
Antimony	6	100.00%	1.87	8.52	7.00	-	409	-	mg/kg
Aroclor-1254	1	100.00%	28.00	28.00	6.70	-	12400	371000	ug/kg
Aroclor-1260	3	100.00%	13.50	24.00	5.40	-	12400	-	ug/kg
Arsenic	19	100.00%	5.43	15.20	5.00	10.09	22.2	21.6	mg/kg
Benzo(a)anthracene	5	100.00%	94.60	220.00	44.00	-	34900	800000	ug/kg
Benzo(a)pyrene	2	100.00%	200.00	290.00	100.00	-	3490	25700	ug/kg
Benzo(b)fluoranthene	1	100.00%	230.00	230.00	110.00	-	34900	1010000	ug/kg
Benzo(g,h,i)perylene	1	100.00%	210.00	210.00	77.00	-	-	-	-
Benzo(k)fluoranthene	2	100.00%	160.00	210.00	100.00	-	349000	1010000	ug/kg
Benzoic Acid	2	100.00%	900.00	920.00	640.00	-	1000000000	-	ug/kg
Boron	1	100.00%	1.50	1.50	0.38	-	-	-	-
Cadmium	11	100.00%	0.50	0.97	0.05	1.61	962	-	mg/kg
Chromium VI	2	100.00%	53.40	60.70	20.00	-	268	-	mg/kg
Chrysene	5	100.00%	128.40	300.00	60.00	-	3490000	-	ug/kg
Cobalt	17	100.00%	4.95	8.90	0.09	10.91	1550	-	mg/kg
Copper	2	100.00%	59.95	67.60	4.00	18.06	40900	-	mg/kg
Fluoranthene	8	100.00%	157.50	240.00	94.00	-	27200000	-	ug/kg
Hexanedioic Acid, bis(2-	4	0.00%	1120.00	1700.00	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	2	100.00%	126.00	180.00	54.00	-	34900	-	ug/kg
Lithium	17	100.00%	10.85	16.50	0.19	11.55	20400	-	mg/kg

Table 5
IHSS Group NE/NW Surface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker	Ecological Receptor Action Level	Unit
Mercury	17	100.00%	0.05	0.16	0.00	0.13	25200	-	mg/kg
Methylene chloride	1	100.00%	1.50	1.50	0.80	-	2530000	39500	ug/kg
Molybdenum	6	100.00%	0.31	0.53	0.14	-	5110	-	mg/kg
Nickel	6	100.00%	18.78	49.80	12.00	14.91	20400	-	mg/kg
Phenanthrene	7	100.00%	124.00	200.00	45.00	-	-	-	-
Pyrene	9	100.00%	143.22	240.00	62.00	-	22100000	-	ug/kg
Selenium	7	100.00%	0.69	1.48	1.00	1.22	5110	-	mg/kg
Silver	9	88.89%	0.40	0.79	0.06	-	5110	-	mg/kg
Sodium	7	100.00%	365.43	618.00	112.00	91.84	-	-	mg/kg
Strontium	10	100.00%	57.76	201.00	20.00	48.94	613000	-	mg/kg
Thallium	7	100.00%	1.01	1.20	0.83	-	-	-	mg/kg
Tin	18	100.00%	2.64	5.97	4.00	-	613000	-	mg/kg
Uranium	2	100.00%	6.15	8.00	1.50	-	-	-	-
Uranium-234	3	100.00%	0.60	0.77	0.34	2.25	300	1800	pci/g
Uranium-235	4	100.00%	0.25	0.44	0.26	0.09	8	1900	pci/g
Uranium-238	7	100.00%	1.86	4.24	1.92	2.00	351	1600	pci/g
Zinc	2	100.00%	125.00	126.00	9.00	73.76	307000	-	mg/kg

Table 6
IHSS Group NE/NW Subsurface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples Analyzed	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
1,1,2,2-Tetrachloroethane	1	100.00%	72.00	72.00	-	-	100000	-	ug/kg
1,2-Dichloroethene (total)	1	0.00%	2.00	2.00	-	-	9200000	-	ug/kg
1-Hexanol, 2-Ethyl-	24	0.00%	19.60	140.00	27.71	-	-	-	-
1-Hexanol, 2-ethyl-	1	0.00%	8.00	8.00	-	-	-	-	-
1h-Indene, 2,3-Dihydro-1,1-dim	1	0.00%	38.00	38.00	-	-	-	-	-
2,8-Dimethyldibenzo(b,d)Thioph	3	0.00%	216.67	250.00	57.74	-	-	-	-
2-Butanone	10	100.00%	2195.85	8100.00	3409.69	-	192000000	433000	ug/kg
2-Hexanone	2	100.00%	18.50	19.00	0.71	-	-	-	-
2-Methylnaphthalene	1	100.00%	110.00	110.00	-	-	20400000	-	ug/kg
2-Propanol, 1-Butoxy-	2	0.00%	230.00	270.00	56.57	-	-	-	-
3-Methylheptyl Acetate	2	0.00%	16.50	19.00	3.54	-	-	-	-
3-Penten-2-One, 4-Methyl-	10	0.00%	179.50	310.00	75.00	-	-	-	-
4-Methyl-2-pentanone	1	0.00%	2.00	2.00	-	-	16400000	-	ug/kg
9h-Fluoren-9-One	1	0.00%	2300.00	2300.00	-	-	-	-	-
Acenaphthene	2	100.00%	125.00	140.00	21.21	-	40800000	-	ug/kg
Acenaphthylene	1	100.00%	1100.00	1100.00	-	-	-	-	-
Acetic Acid, 2-Ethylhexyl Este	4	0.00%	39.50	94.00	38.91	-	-	-	-
Acetone	45	80.00%	14.68	93.00	19.43	-	102000000	211000	ug/kg
Aluminum	4	100.00%	7200.00	13300.00	4297.81	16902.00	228000	-	mg/kg
Americium-241	13	46.15%	0.27	2.89	0.80	0.02	76	1900	pci/g
Anthracene	6	100.00%	656.50	2500.00	916.17	-	204000000	-	ug/kg
Anthracene, 1-Methyl-	1	0.00%	160.00	160.00	-	-	-	-	-
Anthracene, 2-Methyl-	3	0.00%	820.00	1900.00	936.16	-	-	-	-
Anthracene, 9-Methyl-	1	0.00%	410.00	410.00	-	-	-	-	-
Antimony	8	100.00%	0.78	1.50	0.35	-	409	-	mg/kg

Table 6
IHSS Group NE/NW Subsurface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples Analyzed	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
Aroclor-1254	6	100.00%	49.57	190.00	69.64	-	12400	371000	ug/kg
Aroclor-1260	5	100.00%	106.64	320.00	137.07	-	12400	-	ug/kg
Arsenic	96	98.96%	4.19	11.30	2.35	10.09	22.2	21.6	mg/kg
Barium	7	28.57%	27.61	41.70	9.16	141.26	26400	-	mg/kg
Benzene, 1,3-Diethyl-5-Methyl-	1	0.00%	15.00	15.00	-	-	-	-	-
Benzene, 4-Ethyl-1,2-Dimethyl-	1	0.00%	8.70	8.70	-	-	-	-	-
Benzo(a)anthracene	11	100.00%	157.27	290.00	85.16	-	34900	800000	ug/kg
Benzo(a)pyrene	8	100.00%	212.50	440.00	113.36	-	3490	25700	ug/kg
Benzo(b)fluoranthene	3	100.00%	193.33	220.00	23.09	-	34900	1010000	ug/kg
Benzo(g,h,i)perylene	7	100.00%	530.86	2700.00	959.37	-	-	-	-
Benzo(k)fluoranthene	3	100.00%	226.67	250.00	25.17	-	349000	1010000	ug/kg
Benzoic Acid	5	0.00%	282.40	580.00	187.75	-	1000000000	-	ug/kg
Beryllium	25	64.00%	0.32	0.96	0.27	0.97	921	2.15	mg/kg
bis(2-Ethylhexyl)phthalate	10	20.00%	162.20	910.00	264.72	-	1970000	-	ug/kg
Boron	20	100.00%	1.07	1.60	0.35	-	-	-	-
Butanal	1	0.00%	15.00	15.00	-	-	-	-	-
Butylated Hydroxytoluene	2	0.00%	6.65	7.00	0.49	-	-	-	-
Butylbenzylphthalate	8	0.00%	113.00	220.00	57.25	-	147000000	-	ug/kg
Cadmium	37	94.59%	0.26	0.88	0.18	1.61	962	-	mg/kg
Carbon Tetrachloride	1	0.00%	3.00	3.00	-	-	81500	83200	ug/kg
Chloroform	2	50.00%	4.50	7.00	3.54	-	19200	101000	ug/kg
Chromium VI	4	100.00%	9.65	17.00	5.15	-	268	-	mg/kg
Chrysene	12	100.00%	215.67	450.00	130.06	-	3490000	-	ug/kg
cis-1,2-Dichloroethene	5	100.00%	671.36	2200.00	974.60	-	-	-	-
Cobalt	116	85.34%	3.93	12.50	2.12	10.91	1550	-	mg/kg

Table 6
IHSS Group NE/NW Subsurface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples Analyzed	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
Copper	26	100.00%	3.70	5.50	1.04	18.06	40900	-	mg/kg
Cesium-137	15	0.00%	-0.02	0.02	0.02	1.68	-	-	pci/g
Cyclotetrasiloxane, Octamethyl	2	0.00%	6.30	7.20	1.27	-	-	-	-
D-Friedoolean-14-Ene, 3-Methox	5	0.00%	3602.00	11000.00	4179.83	-	-	-	-
Di-n-butylphthalate	4	0.00%	49.50	56.00	5.69	-	73700000	-	ug/kg
Dibenz(a,h)anthracene	2	100.00%	935.00	1700.00	1081.87	-	3490	-	ug/kg
Dibenzothiophene, 3-Methyl-	1	0.00%	230.00	230.00	-	-	-	-	-
Diethylphthalate	1	0.00%	160.00	160.00	-	-	590000000	-	ug/kg
Eicosane	2	0.00%	1450.00	1600.00	212.13	-	-	-	-
Fluoranthene	6	100.00%	271.67	710.00	232.67	-	27200000	-	ug/kg
Fluorene	2	100.00%	469.00	840.00	524.67	-	40800000	-	ug/kg
Heneicosane	1	0.00%	23.00	23.00	-	-	-	-	-
Heptacosane	1	0.00%	270.00	270.00	-	-	-	-	-
Hexanedioic Acid, bis(2-Ethylh	53	0.00%	969.15	7900.00	1400.96	-	-	-	-
Hexanedioic Acid, Dioctyl Este	1	0.00%	310.00	310.00	-	-	-	-	-
Hexanedioic Acid, Mono(2-Ethyl	3	0.00%	503.33	810.00	268.58	-	-	-	-
Hexanoic Acid, 2-Ethyl-	1	0.00%	490.00	490.00	-	-	-	-	-
Hexanoic Acid, Butyl Ester	1	0.00%	16.00	16.00	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	7	100.00%	565.14	3000.00	1076.40	-	34900	-	ug/kg
Iron	4	100.00%	8662.50	17700.00	6264.56	18037.00	307000	-	mg/kg
Lead	91	100.00%	5.13	19.90	2.78	54.62	1000	25.6	mg/kg
Lithium	112	84.82%	9.25	23.60	3.86	11.55	20400	-	mg/kg
Magnesium	3	100.00%	692.33	802.00	106.64	2849.30	-	-	mg/kg
Manganese	4	100.00%	922.53	3160.00	1494.09	365.08	3480	-	mg/kg
Mercury	92	96.74%	0.05	2.00	0.21	0.13	25200	-	mg/kg

Table 6
IHSS Group NE/NW Subsurface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples Analyzed	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
Methyldibenzothiophene	1	0.00%	210.00	210.00	-	-	-	-	-
Methylene chloride	76	92.11%	145.92	3000.00	472.67	-	2530000	39500	ug/kg
Molybdenum	50	94.00%	2.74	37.70	7.38	-	5110	-	mg/kg
Naphthalene	1	0.00%	1.00	1.00	-	-	3090000	-	ug/kg
Naphthalene, 1,7-Dimethyl-	1	0.00%	180.00	180.00	-	-	-	-	-
Naphthalene, 2,7-Dimethyl-	1	0.00%	150.00	150.00	-	-	-	-	-
Naphtho[2,3-B]Thiophene, 4,9-D	3	0.00%	1046.67	2700.00	1431.86	-	-	-	-
Nickel	36	97.22%	6.38	9.40	1.91	14.91	20400	-	mg/kg
Nonadecane	1	0.00%	190.00	190.00	-	-	-	-	-
Octadecane	2	0.00%	1790.00	3300.00	2135.46	-	-	-	-
Pentachlorophenol	1	100.00%	790.00	790.00	-	-	162000	-	ug/kg
Pentadecane	1	0.00%	250.00	250.00	-	-	-	-	-
Pentatriacontane	1	0.00%	1400.00	1400.00	-	-	-	-	-
Phenanthrene	11	100.00%	186.27	500.00	130.00	-	-	-	-
Phenanthrene, 1-Methyl-	1	0.00%	180.00	180.00	-	-	-	-	-
Phenanthrene, 2,5-Dimethyl-	2	0.00%	415.00	600.00	261.63	-	-	-	-
Phenanthrene, 2-Methyl-	1	0.00%	190.00	190.00	-	-	-	-	-
Phenol	1	0.00%	270.00	270.00	-	-	613000000	-	ug/kg
Plutonium-239/240	5	40.00%	0.01	0.02	0.01	0.07	50	3800	pci/g
Potassium	39	100.00%	801.95	1310.00	218.81	2967.20	-	-	mg/kg
Propane, 1,2-Dimethoxy-	1	0.00%	210.00	210.00	-	-	-	-	-
Plutonium-238	6	0.00%	0.00	0.01	0.00	-	-	-	-
Pyrene	11	100.00%	208.18	590.00	160.25	-	22100000	-	ug/kg
Pyrene, 2-Methyl-	1	0.00%	820.00	820.00	-	-	-	-	-
Radium-226	4	75.00%	0.45	0.49	0.04	0.93	-	-	pci/g

Table 6
IHSS Group NE/NW Subsurface Soil Summary of Analytical Results with RFCA Action Levels

Analyte	Total Number Samples Analyzed	Detection Frequency (percent)	Average Concentration	Maximum Concentration	Standard Deviation	Backgound Mean Plus 2SD	Wildlife Refuge Worker Action Level	Ecological Receptor Action Level	Unit
Selenium	14	78.57%	0.63	0.93	0.12	1.22	5110	-	mg/kg
Silver	27	96.30%	0.23	0.94	0.23	-	5110	-	mg/kg
Sodium	13	100.00%	427.54	765.00	210.83	91.84	-	-	mg/kg
Strontium	68	76.47%	21.81	46.00	9.88	48.94	613000	-	mg/kg
Tetrachloroethene	18	88.89%	2.33	4.20	0.97	-	615000	37500	ug/kg
Tetradecanoic Acid	1	0.00%	150.00	150.00	-	-	-	-	-
Thallium	23	100.00%	1.03	1.60	0.16	-	-	-	mg/kg
Tin	99	97.98%	2.24	21.60	2.35	-	613000	-	mg/kg
Toluene	2	50.00%	306.00	610.00	429.92	-	31300000	128000	ug/kg
Total Strontium	16	43.75%	0.06	0.30	0.08	0.51	-	-	pci/g
Trichloroethene	9	88.89%	428.64	1900.00	712.73	-	19600	509000	ug/kg
Tridecane	1	0.00%	220.00	220.00	-	-	-	-	-
Uranium	47	100.00%	4.09	7.40	1.44	-	-	-	-
Uranium-235	61	93.44%	0.17	0.44	0.10	0.09	8	1900	pci/g
Uranium-238	58	100.00%	2.64	7.18	1.41	2.00	351	1600	pci/g
Vanadium	11	100.00%	7.07	8.80	1.49	45.59	7150	433	mg/kg
Zinc	5	100.00%	14.16	25.70	8.66	73.76	307000	-	mg/kg

Table 7
Radionuclides Sum of Ratios for Surface Soil

Location Code	Easting	Northing	Sum of Ratio to Wildlife Refuge Worker Action Level
BW52-000	751772.30	2082012.80	0.035
CV41-001	749570.86	2086994.24	0.017
CV41-004	749619.88	2087073.47	0.006
CV41-006	749621.22	2087106.37	0.101
CW40-003	749457.21	2087207.75	0.021
CW40-004	749479.75	2087204.26	0.268

Table 8
Radionuclides Sum of Ratios for Subsurface Soil

Location Code	Easting	Northing	Soil Begin Depth (feet)	Soil End Depth (feet)	Sum of Ratio to Wildlife Refuge Worker Action Level
CV40-000	749457.38	2087080.79	9	11	0.020
CV40-002	749442.72	2087119.05	0.5	2.5	0.321
CV40-002	749442.72	2087119.05	2.5	4.5	0.011
CV40-002	749442.72	2087119.05	4.5	6.5	0.043
CV40-002	749442.72	2087119.05	6.5	8.5	0.046
CV40-002	749442.72	2087119.05	8.5	9.5	0.020
CV41-000	749584.29	2086966.71	0.5	1	0.042
CV41-000	749584.29	2086966.71	1	3	0.056
CV41-000	749584.29	2086966.71	3	5	0.035
CV41-001	749570.86	2086994.24	0.5	2.5	0.031
CV41-001	749570.86	2086994.24	2.5	4.5	0.006
CV41-001	749570.86	2086994.24	4.5	6.5	0.033

Table 8
Radionuclides Sum of Ratios for Subsurface Soil

Location Code	Easting	Northing	Soil Begin Depth (feet)	Soil End Depth (feet)	Sum of Ratio to Wildlife Refuge Worker Action Level
CV41-001	749570.86	2086994.24	6.5	8.5	0.008
CV41-002	749599.73	2087015.06	7	9	0.035
CV41-003	749597.05	2087050.64	3	5	0.033
CV41-003	749597.05	2087050.64	5	7	0.037
CV41-003	749597.05	2087050.64	7	9	0.041
CV41-003	749597.05	2087050.64	9	11	0.041
CV41-004	749619.88	2087073.47	0.5	2.5	0.007
CV41-004	749619.88	2087073.47	2.5	4.5	0.054
CV41-004	749619.88	2087073.47	4.5	6.5	0.041
CV41-004	749619.88	2087073.47	6.5	8.5	0.037
CV41-004	749619.88	2087073.47	8.5	10.5	0.038
CV41-005	749593.02	2087086.22	0.5	1	0.005
CV41-005	749593.02	2087086.22	5	7	0.018
CV41-006	749621.22	2087106.37	0.5	2.5	0.035
CV41-006	749621.22	2087106.37	2.5	4.5	0.048
CV41-006	749621.22	2087106.37	4.5	6.5	0.035
CV41-006	749621.22	2087106.37	6.5	8.5	0.028
CV41-006	749621.22	2087106.37	8.5	10.5	0.036
CW40-000	749477.67	2087139.09	0.5	1	0.016
CW40-000	749477.67	2087139.09	3	5	0.015
CW40-000	749477.67	2087139.09	5	7	0.016
CW40-002	749468.30	2087173.08	2.5	4.5	0.040
CW40-002	749468.30	2087173.08	4.5	6.5	0.037
CW40-002	749468.30	2087173.08	6.5	8.5	0.036
CW40-002	749468.30	2087173.08	8.5	10.5	0.045
CW40-003	749457.21	2087207.75	0.5	2.5	0.063

Table 8
Radionuclides Sum of Ratios for Subsurface Soil

Location Code	Easting	Northing	Soil Begin Depth (feet)	Soil End Depth (feet)	Sum of Ratio to Wildlife Refuge Worker Action Level
CW40-003	749457.21	2087207.75	6.5	8.5	0.015
CW40-004	749479.75	2087204.29	0.5	2.5	0.075
CW40-004	749479.75	2087204.29	2.5	4.5	0.028
CW40-004	749479.75	2087204.29	4.5	6.5	0.033
CW40-004	749479.75	2087204.29	6.5	8.5	0.032
CW41-000	749618.53	2087142.62	0.5	2.5	0.022
CW41-000	749618.53	2087142.62	2.5	4.5	0.022
CW41-000	749618.53	2087142.62	4.5	6.5	0.028
CW41-000	749618.53	2087142.62	6.5	8.5	0.021
CW41-000	749618.53	2087142.62	8.5	10.5	0.005
CW41-001	749648.07	2087163.44	0.5	2.5	0.005
CW41-001	749648.07	2087163.44	2.5	4.5	0.007
CW41-001	749648.07	2087163.44	4.5	6.5	0.029
CW41-001	749648.07	2087163.44	8.5	10.5	0.011
CW41-002	749622.56	2087178.88	4.5	6.5	0.041
CW41-002	749622.56	2087178.88	6.5	8.5	0.045

3.0 DEVIATIONS FROM PLANNED SAMPLING SPECIFICATIONS

Deviations from the planned sampling specifications described in BZSAP Addendum #BZ-02-01 (DOE 2002b) were approved through the consultative process with EPA and are presented in Table 9

Table 9
IHSS Group NE/NW Deviations From Planned Sampling Specifications

IHSS/PAC	Location Code	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Comments
216.2	No deviations from the planned sampling specifications.					
216.3	DB39-000	unplanned		2088323.82	749287.21	Sample locations were added or moved based on topography and approved by EPA during the presampling field walkdown and consultative process.
	DC39-000	unplanned		2088448.69	749186.93	
	DG41-001	2089312.89	749743.20	2089248.22	749647.97	
	DD43-001	2088438.18	750004.16	2088550.71	750003.07	
	DC40-000	2088394.64	749416.24	2088396.73	749412.32	
	DB39-000	2088267.14	749247.11	2088448.57	749186.75	
	DB39-001	2088319.18	749273.13	2088323.82	749287.21	
	DD40-000	2088550.76	749551.55	2088585.28	749572.23	
	DD42-000	2088664.41	749777.16	2089129.65	749906.57	
	DE42-000	2088880.00	749926.08	2088837.41	749946.42	
	DG41-000	2089312.89	749743.20	2089248.07	749648.40	
	DD39-000	2088604.66	749159.20	2088620.52	749244.49	
NE-1407	No deviations from the planned sampling specifications.					
NE-1412	STEP OUT 1	unplanned		2087034.21	749626.36	Sample locations were added in September 2002 based on VOC results from previous sampling conducted in June 2002.
	STEP OUT 2	unplanned		2087079.97	749636.97	
	STEP OUT 3	unplanned		2087116.33	749635.15	
	STEP OUT 4	unplanned		2087113.72	749616.62	
NE-1413	CV40-000	2087078.06	749463.45	2087080.79	749457.38	Sample location deviation was based on topography to accommodate drill rig.
174a	BW52-000	2082020.64	751766.82	2082012.80	751772.30	Sample location deviation was due to existing well in planned location.

4.0 DATA QUALITY ASSESSMENT

The Data Quality Objectives (DQOs) for this project are described in the BZSAP (DOE 2002a). All DQOs for this project were achieved based on the following:

- Regulatory agency approved sampling program design (BZSAP Addendum 02-01 [DOE 2002b);
- Collection of samples in accordance with the sampling design;
- Results of the Data Quality Assessment as described in the following sections.

4.1.1 Data Quality Assessment Process

The DQA process ensures that the type, quantity and quality of environmental data used in decision making are defensible, and is based on the following guidance and requirements:

- EPA QA/G-4, 1994a, Guidance for the Data Quality Objective Process;
- EPA QA/G-9, 1998, Guidance for the Data Quality Assessment Process; Practical Methods for Data Analysis; and
- DOE Order 414.1A, 1999, Quality Assurance.

Verification and Validation (V&V) of the data are the primary components of the DQA. The final data are compared with original project DQOs and evaluated with respect to project decisions; uncertainty within the decisions; and quality criteria required for the data, specifically precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). Validation criteria are consistent with the following RFETS-specific documents and industry guidelines:

- EPA 540/R-94/012, 1994b, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review;
- EPA 540/R-94/013, 1994c, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review; and
- Kaiser-Hill Company, L.L.C.(K-H) V&V Guidelines:
- General Guidelines for Data Verification and Validation, DA-GR01-v2, 2002a.
- V&V Guidelines for Isotopic Determinations by Alpha Spectrometry, DA-RC01-v2, 2002b.
- V&V Guidelines for Volatile Organics, DA-SS01-v3, 2002c.
- V&V Guidelines for Semivolatile Organics, DA-SS02-v3, 2002d.

- V&V Guidelines for Metals, DA-SS05-v3, 2002e.
- Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5.

This report will be submitted to the Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA) Administrative Record (AR) for permanent storage 30 days after being provided to CDPHE and/or U.S. EPA.

4.1.2 Verification and Validation of Results

Verification ensures that data produced and used by the project are documented and traceable in accordance with quality requirements. Validation consists of a technical review of all data that directly support the project decisions so that any limitations of the data relative to project goals are delineated and the associated data are qualified accordingly. The V&V process defines the criteria that constitute data quality, namely PARCCS parameters. Data traceability and archival are also addressed. V&V criteria include the following:

- Chain-of-custody;
- Preservation and hold-times;
- Instrument calibrations;
- Preparation blanks;
- Interference check samples (metals);
- Matrix spikes/matrix spike duplicates (MS/MSD);
- Laboratory control samples (LCS);
- Field duplicate measurements;
- Chemical yield (radiochemistry);
- Required quantitation limits/minimum detectable activities (sensitivity of chemical and radiochemical measurements, respectively); and
- Sample analysis and preparation methods.

Evaluation of V&V criteria ensures that PARCCS parameters are satisfactory (i.e., within tolerances acceptable to the project). Satisfactory V&V of laboratory quality controls are captured through application of validation "flags" or qualifiers to individual records.

Raw hardcopy data (e.g., individual analytical data packages) are currently filed by RIN and are maintained by Kaiser-Hill Analytical Services Division; older hardcopies may reside in the Federal Center in Lakewood, Colorado. Electronic data are stored in the RFETS Soil and Water Database (SWD).

Both quality control (QC) and real data, as of May 22, 2003, are included on the enclosed CD.

4.1.3 Accuracy

The following measures of accuracy were evaluated:

- Laboratory Control Sample Evaluation;
- Surrogate Evaluation;
- Field Blanks; and
- Sample Matrix Spike Evaluation.

Results are compared to method requirements and project goals. The results of these comparisons are summarized for RFCA COCs where the result could impact project decisions. Particular attention is paid to those values near ALs when quality control (QC) results could indicate unacceptable levels of uncertainty for decision-making purposes.

Laboratory Control Sample Evaluation

The frequency of Laboratory Control Sample (LCS) measurements, relative to each laboratory batch, is given in Table 10. LCS frequency was adequate based on at least one LCS per batch. The minimum and maximum LCS results are also tabulated, by chemical, for the entire project. While not all LCS results are within tolerances, project decisions based on AL exceedances were not affected. Any qualifications of results due to LCS performance exceeding upper or lower tolerance limits are captured in the V&V flags, described in the Completeness Section.

Surrogate Evaluation

The frequency of surrogate measurements, relative to each laboratory batch, is given in Table 11. Surrogate frequency was adequate based on at least one set per sample. The minimum and maximum surrogate results are also tabulated, by chemical, for the entire project. Any qualifications of results due to surrogate results are captured in the V&V flags, described in the Completeness Section.

Field Blank Evaluation

Detectable amounts of contaminants within the blanks, which could indicate possible cross-contamination of samples, are evaluated if the same contaminant is detected in the associated real samples. When the real result is less than 10 times the blank result for laboratory contaminants and 5 times the result for non-laboratory contaminants, the real result is eliminated. None of the chemicals detected in blanks were detected at concentrations greater than ALs, therefore no significant blank contamination is indicated.

Table 10
Laboratory Control Sample Evaluation

CAS Number	Analyte	Result Type	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Method
75-35-4	1,1-DICHLOROETHENE	LC	74	102	28	28	%REC	SW-846 8260
120-82-1	1,2,4-TRICHLOROBENZENE	LC	53	73	12	12	%REC	SW-846 8270B
121-14-2	2,4-DINITROTOLUENE	LC	54	80	12	12	%REC	SW-846 8270B
95-57-8	2-CHLOROPHENOL	LC	57	77	12	12	%REC	SW-846 8270B
83-32-9	ACENAPHTHENE	LC	55	74	12	12	%REC	SW-846 8270B
7429-90-5	ALUMINUM	LC	91	99	8	8	%REC	SW-846 6010/6010B
7440-36-0	ANTIMONY	LC	89	97	8	8	%REC	SW-846 6010/6010B
12674-11-2	AROCLOR-1016	LC	81	122	10	10	%REC	SW-846 8082
11096-82-5	AROCLOR-1260	LC	88	110	10	10	%REC	SW-846 8082
7440-38-2	ARSENIC	LC	91	101	8	8	%REC	SW-846 6010/6010B
7440-39-3	BARIUM	LC	94	105	8	8	%REC	SW-846 6010/6010B
71-43-2	BENZENE	LC	83	110	28	28	%REC	SW-846 8260
7440-41-7	BERYLLIUM	LC	89	102	8	8	%REC	SW-846 6010/6010B
7440-43-9	CADMIUM	LC	88	100	8	8	%REC	SW-846 6010/6010B
108-90-7	CHLOROBENZENE	LC	86	105	28	28	%REC	SW-846 8260
7440-48-4	COBALT	LC	88	99	8	8	%REC	SW-846 6010/6010B
7440-50-8	COPPER	LC	93	104	8	8	%REC	SW-846 6010/6010B
7439-89-6	IRON	LC	93	100	8	8	%REC	SW-846 6010/6010B
7439-92-1	LEAD	LC	91	103	8	8	%REC	SW-846 6010/6010B
7439-93-2	LITHIUM	LC	91	100	8	8	%REC	SW-846 6010/6010B
7439-96-5	MANGANESE	LC	91	101	8	8	%REC	SW-846 6010/6010B
7439-97-6	MERCURY	LC	97	102	9	9	%REC	SW-846 6010/6010B
7439-98-7	MOLYBDENUM	LC	88	96	8	8	%REC	SW-846 6010/6010B
7440-02-0	NICKEL	LC	89	102	8	8	%REC	SW-846 6010/6010B
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	LC	54	79	12	12	%REC	SW-846 8270B
106-46-7	P-DICHLOROBENZENE	LC	54	72	12	12	%REC	SW-846 8270B
87-86-5	PENTACHLOROPHENOL	LC	42	69	12	12	%REC	SW-846 8270B
108-95-2	PHENOL	LC	55	77	12	12	%REC	SW-846 8270B

Table 10
Laboratory Control Sample Evaluation

CAS Number	Analyte	Result Type	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Method
100-02-7	P-NITROPHENOL	LC	49	68	12	12	%REC	SW-846 8270B
129-00-0	PYRENE	LC	53	75	12	12	%REC	SW-846 8270B
7782-49-2	SELENIUM	LC	94	103	8	8	%REC	SW-846 6010/6010B
7440-22-4	SILVER	LC	91	109	8	8	%REC	SW-846 6010/6010B
7440-24-6	STRONTIUM	LC	92	103	8	8	%REC	SW-846 6010/6010B
7440-31-5	TIN	LC	88	98	8	8	%REC	SW-846 6010/6010B
108-88-3	TOLUENE	LC	83	104	28	28	%REC	SW-846 8260
79-01-6	TRICHLOROETHENE	LC	86	107	28	28	%REC	SW-846 8260
7440-62-2	VANADIUM	LC	91	100	8	8	%REC	SW-846 6010/6010B
7440-66-6	ZINC	LC	86	102	8	8	%REC	SW-846 6010/6010B

Table 11
Surrogate Recovery Summary

VOC Surrogate Recoveries				
Number of Samples	Analyte	Minimum	Maximum	Unit Code
132	1,2-DICHLOROETHANE-D4	84	126	%REC
132	4-BROMOFLUOROBENZENE	90	126	%REC
132	TOLUENE-D8	92	118	%REC
SVOC Surrogate Recoveries				
Number of Samples	Analyte	Minimum	Maximum	Unit Code
134	TERPHENYL-D14	20	86	%REC
134	2-FLUOROBIPHENYL	24	78	%REC
134	2-FLUOROPHENOL	22	75	%REC
134	NITROBENZENE-D5	21	80	%REC

Sample Matrix Spike Evaluation

The frequency of MS measurements, relative to each laboratory batch, was adequate based on at least one MS per batch. The minimum and maximum of MS results are summarized by chemical, for the entire project in Table 12. While some of the recoveries appear to be low, they would not result in rejection of data that affects the project decision.

Table 12
Sample Matrix Spike Evaluation

CAS Number	Analyte	Result Type	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Method
7429-90-5	ALUMINUM	MS	312	4230	8	8	%REC	SW-846 6010/6010B
7439-89-6	IRON	MS	0	1820	8	8	%REC	SW-846 6010/6010B
7439-92-1	LEAD	MS	78	127	8	8	%REC	SW-846 6010/6010B
7439-93-2	LITHIUM	MS	86	99	8	8	%REC	SW-846 6010/6010B
7439-96-5	MANGANESE	MS	0	242	8	8	%REC	SW-846 6010/6010B
7439-97-6	MERCURY	MS	91	102	8	8	%REC	SW-846 6010/6010B
7439-98-7	MOLYBDENUM	MS	80	91	8	8	%REC	SW-846 6010/6010B
7440-02-0	NICKEL	MS	79	98	8	8	%REC	SW-846 6010/6010B
7440-22-4	SILVER	MS	85	142	8	8	%REC	SW-846 6010/6010B
7440-24-6	STRONTIUM	MS	0	108	8	8	%REC	SW-846 6010/6010B
7440-31-5	TIN	MS	71	96	8	8	%REC	SW-846 6010/6010B

Table 12
Sample Matrix Spike Evaluation

CAS Number	Analyte	Result Type	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Method
7440-36-0	ANTIMONY	MS	26	58	8	8	%REC	SW-846 6010/6010B
7440-38-2	ARSENIC	MS	85	100	8	8	%REC	SW-846 6010/6010B
7440-39-3	BARIUM	MS	75	106	8	8	%REC	SW-846 6010/6010B
7440-41-7	BERYLLIUM	MS	78	101	8	8	%REC	SW-846 6010/6010B
7440-43-9	CADMIUM	MS	75	96	8	8	%REC	SW-846 6010/6010B
7440-48-4	COBALT	MS	82	96	8	8	%REC	SW-846 6010/6010B
7440-50-8	COPPER	MS	86	109	8	8	%REC	SW-846 6010/6010B
7440-62-2	VANADIUM	MS	83	108	8	8	%REC	SW-846 6010/6010B
7440-66-6	ZINC	MS	69	101	8	8	%REC	SW-846 6010/6010B
7782-49-2	SELENIUM	MS	89	100	8	8	%REC	SW-846 6010/6010B
11096-82-5	AROCLOR-1260	MS	55	124	9	9	%REC	SW-846 8082
12674-11-2	AROCLOR-1016	MS	57	138	9	9	%REC	SW-846 8082
108-88-3	TOLUENE	MS	57	107	13	13	%REC	SW-846 8260
108-90-7	CHLOROBENZENE	MS	49	106	13	13	%REC	SW-846 8260
71-43-2	BENZENE	MS	63	111	13	13	%REC	SW-846 8260
75-35-4	1,1-DICHLOROETHENE	MS	60	100	13	13	%REC	SW-846 8260
79-01-6	TRICHLOROETHENE	MS	58	111	13	13	%REC	SW-846 8260
100-02-7	P-NITROPHENOL	MS	45	73	10	10	%REC	SW-846 8270B
106-46-7	P-DICHLOROBENZENE	MS	43	60	10	10	%REC	SW-846 8270B
108-95-2	PHENOL	MS	53	68	10	10	%REC	SW-846 8270B
120-82-1	1,2,4-TRICHLOROBENZENE	MS	48	63	10	10	%REC	SW-846 8270B
121-14-2	2,4-DINITROTOLUENE	MS	48	71	10	10	%REC	SW-846 8270B
129-00-0	PYRENE	MS	50	70	10	10	%REC	SW-846 8270B
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	MS	53	67	10	10	%REC	SW-846 8270B

Table 12
Sample Matrix Spike Evaluation

CAS Number	Analyte	Result Type	Minimum	Maximum	Number of Laboratory Samples	Number of Laboratory Batches	Unit	Laboratory Method
83-32-9	ACENAPHTHENE	MS	49	65	10	10	%REC	SW-846 8270B
87-86-5	PENTACHLOROPHENOL	MS	20	61	10	10	%REC	SW-846 8270B
95-57-8	2-CHLOROPHENOL	MS	52	69	10	10	%REC	SW-846 8270B

4.1.4 Precision

Matrix Spike Duplicate Evaluation

Laboratory precision is measured through use of MSD. Adequate frequency of MSD measurements is indicated by at least one MSD in each laboratory batch. Table 13 indicates that MSD frequencies were adequate. While some of the recoveries appear to be low, they would not result in rejection of data that affects the project decision.

Table 13
Sample Matrix Spike Duplicate Evaluation

Analyte Name	Number of Sample Pairs	Number of Laboratory Batches	Max RPD (%)
P-NITROPHENOL	10	10	43.48
P-DICHLOROBENZENE	10	10	22.95
TOLUENE	13	13	11.46
CHLOROBENZENE	13	13	10.78
PHENOL	10	10	21.21
AROCLOR-1260	9	9	38.24
1,2,4-TRICHLOROBENZENE	10	10	15.63
2,4-DINITROTOLUENE	10	10	23.85
AROCLOR-1016	9	9	33.58
PYRENE	10	10	58.06
N-NITROSO-DI-N-PROPYLAMINE	10	10	20.16
BENZENE	13	13	9.41
ALUMINUM	7	7	127.56
IRON	4	4	109.83
LEAD	8	8	84.57
LITHIUM	8	8	6.74
MANGANESE	7	7	67.59
MERCURY	8	8	14.12
MOLYBDENUM	8	8	10.53
NICKEL	8	8	4.40
LITHIUM	8	8	6.74
MANGANESE	7	7	67.59
MERCURY	8	8	14.12

Table 13
Sample Matrix Spike Duplicate Evaluation

Analyte Name	Number of Sample Pairs	Number of Laboratory Batches	Max RPD (%)
MOLYBDENUM	8	8	10.53
NICKEL	8	8	4.40
BARIUM	8	8	9.26
BERYLLIUM	8	8	17.51
CADMIUM	8	8	4.49
COBALT	8	8	7.59
COPPER	8	8	29.55
VANADIUM	8	8	14.29
ZINC	8	8	25.53
1,1-DICHLOROETHENE	13	13	12.66
SELENIUM	8	8	5.78
TRICHLOROETHENE	13	13	12.72
ACENAPHTHENE	10	10	13.33
PENTACHLOROPHENOL	10	10	71.70
2-CHLOROPHENOL	10	10	20.59

Field Duplicate Evaluation

Field duplicate results reflect sampling precision, or overall repeatability of the sampling process. The frequency of field duplicate collection should exceed 1 field duplicate per 20 real samples, or 5 percent. Table 14 indicates that sampling frequencies were adequate. A common metric for evaluating precision is the relative percent difference (RPD) value; RPD values are given in Table 15. Ideally, RPDs of less than 35 percent (in soil) indicate satisfactory precision. Values exceeding 35 percent only affect project decisions if the imprecision is great enough to cause contradictory decisions relative to the COC (i.e., one sample indicates clean soil whereas the QC partner does not). As indicated by the data in Table 15, a number of analytes, generally metals, VOCs and SVOCs, have RPDs greater than 35 percent. Values exceeding 35 percent only affect project decisions if the imprecision is great enough to cause contradictory decisions relative to the COC (i.e., one sample indicates clean soil whereas the QC partner does not). This scenario is possible for lead and arsenic; however, the elevated concentrations above Ecological Receptor ALs are considered.

Table 14
Field Duplicate Sample Frequency

Test Method Name	Sample Code	Number of Samples	% Duplicate Samples
GAMMA SPECTROSCOPY	REAL	12	25
GAMMA SPECTROSCOPY	DUP	3	
SW-846 6010/6010B	REAL	23	26
SW-846 6010/6010B	DUP	6	
SW-846 6200	REAL	2	—
SW-846 8082	REAL	18	28
SW-846 8082	DUP	5	
SW-846 8260	REAL	39	21
SW-846 8260	DUP	8	
SW-846 8270B	REAL	37	16
SW-846 8270B	DUP	6	

Table 15
RPD Evaluation

Analyte	Max of RPD %
1,1,1-TRICHLOROETHANE	17.86
1,1,2,2-TETRACHLOROETHANE	17.86
1,1,2-TRICHLOROETHANE	17.86
1,1-DICHLOROETHANE	17.86
1,1-DICHLOROETHENE	17.86
1,2,4-TRICHLOROBENZENE	194.87
1,2-DICHLOROETHANE	17.86
1,2-DICHLOROPROPANE	17.86
2,4,5-TRICHLOROPHENOL	13.70
2,4,6-TRICHLOROPHENOL	13.70
2,4-DICHLOROPHENOL	13.70
2,4-DIMETHYLPHENOL	13.70
2,4-DINITROPHENOL	17.14
2,4-DINITROTOLUENE	13.70
2,6-DINITROTOLUENE	13.70
2-BUTANONE	194.82
2-CHLORONAPHTHALENE	13.70
2-CHLOROPHENOL	13.70
2-NITROANILINE	17.14
4-CHLOROANILINE	13.70
4-METHYL-2-PENTANONE	18.18
ACENAPHTHENE	98.04
ACETONE	193.16
ALUMINUM	85.97
ANTHRACENE	98.04

100

Table 15
RPD Evaluation

Analyte	Max of RPD %
ANTIMONY	77.14
ARSENIC	113.90
BARIUM	146.53
BENZENE	17.86
BENZO(A)ANTHRACENE	49.18
BENZO(A)PYRENE	33.85
BENZO(B)FLUORANTHENE	66.67
BENZO(K)FLUORANTHENE	41.27
BENZOIC ACID	17.14
BERYLLIUM	155.87
BIS(2-ETHYLHEXYL)PHTHALATE	13.70
BROMODICHLOROMETHANE	17.86
BROMOFORM	17.86
BROMOMETHANE	17.86
BUTYLBENZYLPHTHALATE	13.70
CARBON DISULFIDE	17.86
CARBON TETRACHLORIDE	17.86
CHLOROBENZENE	17.86
CHLOROETHANE	17.86
CHLOROFORM	17.86
CHLOROMETHANE	17.86
CHRYSENE	23.53
CIS-1,3-DICHLOROPROPENE	17.86
COBALT	110.56
COPPER	110.81
DIBENZ(A,H)ANTHRACENE	13.70
DIBENZOFURAN	13.70
DIBROMOCHLOROMETHANE	17.86
ETHYLBENZENE	17.86
FLUORANTHENE	117.02
FLUORENE	13.70
HEXACHLOROBENZENE	13.70
HEXACHLOROBUTADIENE	194.87
HEXACHLOROCYCLOPENTADIENE	13.33
HEXACHLOROETHANE	13.70
INDENO(1,2,3-CD)PYRENE	86.79
IRON	95.06
ISOPHORONE	13.70
LEAD	134.46
LITHIUM	80.43
MANGANESE	134.03
MERCURY	190.24

101

Table 15
RPD Evaluation

Analyte	Max of RPD %
METHYLENE CHLORIDE	147.32
MOLYBDENUM	187.73
NAPHTHALENE	194.87
NICKEL	105.26
NITROBENZENE	13.70
N-NITROSODIPHENYLAMINE	13.70
PENTACHLOROPHENOL	17.14
PHENOL	13.70
PYRENE	172.09
SELENIUM	65.65
SILVER	181.74
STRONTIUM	170.92
TETRACHLOROETHENE	173.28
TIN	66.67
TOLUENE	17.86
TRANS-1,3-DICHLOROPROPENE	17.86
TRICHLOROETHENE	130.16
VANADIUM	118.72
VINYL CHLORIDE	17.86
ZINC	111.36

Completeness

Based on original project DQOs, a minimum of 25 percent of ER Program analytical (and radiological) results must be formally verified and validated. Of that percentage, no more than 10 percent of the results may be rejected, which ensures that analytical laboratory practices are consistent with quality requirements. Table 16 shows the number and percentage of validated records (codes without "1"), the number and percentage of verified records (codes with "1"), and the percentage of rejected records for each analyte group. Frequency of validation did not meet project goals for any of the analytical suites. However, programmatic goals, shown in Table 17 indicate the DQO of 25% frequency is attained for PCBs, ICP metals, and radionuclides via alpha spectroscopy.

4.1.5 Sensitivity

Reporting limits, in units of ug/kg for organics, mg/kg for metals, and pCi/g for radionuclides, were compared with RFCA WRW and Ecological Receptor ALs. Adequate sensitivities of analytical methods were attained for all COCs that affect project decisions. "Adequate" sensitivity is defined as a reporting limit less than an analyte's associated AL, typically less than one-half the AL.

4.1.6 Summary of Data Quality

The RPD values greater than 35 percent indicate that the sampling precision limits of some analytes have been exceeded. However, the imprecision does not affect project decisions because the only AL exceedances are Ecological Receptor ALs for arsenic and lead and no records were rejected. Compliance with the project quality requirements and RFETS validation goal of 25% of all analytical records indicates that these data are adequate. If additional V&V information is received, IHSS Group NE/NW records will be updated in the Soil Water Database. Data qualified as a result of additional data will be assessed as part of the Comprehensive Risk Assessment process. Data collected and used for IHSS Group NE/NW is adequate for decision-making.

Table 16
Validation and Verification Summary

Validation Code	Number of Records	Radionuclides	Metals	PCBs	SVOCs	VOCs
No V& V	928	928	0	0	0	0
1	158	0	3	7	144	4
J	126	0	126	0	0	0
J1	1208	0	1173	1	31	3
R1	2	0	2	0	0	0
V	3511	0	371	119	1646	1375
V1	15258	0	1730	510	6685	6333
J1	1	0	1	0	0	0
JB	6	0	0	0	0	6
JB1	61	0	0	0	0	61
UJ	63	0	30	0	27	6
UJ1	561	0	138	133	162	128
Total	21883	928	3574	770	8695	7916
Total Validated	3637	0	497	119	1646	1375
% Validated	17%	0%	14%	15%	19%	17%
Total Verified	20955	0	3574	770	8695	7916
% Verified	96%	0%	100%	100%	100%	100%
% Rejected	0.01%	0.00%	0.06%	0.00%	0.00%	0.00%

KEY:
1, V1 - Verified
J, J1 - Estimated
UJ1 - Estimated detection limit
J, V - Validated

Table 17 DQA Completeness Versus Programmatic Goals

Validation Code	Total Number of Records	Radionuclides		Cyanide/ Sulfides	TCLP Metals	Metals ICP	Metals XRF	Pesticides	PCBs	Organo-phosphorus Compounds	Chlorinated Herbicides	VOCs	SVOCs	Nitroaro-matics	Anions
Laboratory Method:		Alpha Spec	Gamma Spec	SW9010/ 9012/903 0/9040	SW1311,60 10,7470	SW6010	SW6200	SW8081	SW8082	SW8141	SW8151	SW8260	SW827 0	SW8330	SW9056 or E300
Null	42540	145	25761			985	60					15039	545		5
1	420					3			14			69	332		2
J1	3782	2		4	21	3047	598	5	8			14	33		50
U1	2						1					1			
V1	58575	172	7	22	85	6853	6111	870	1059	140	120	14423	28707		6
J1	1					1									
JB1	124							4				120			
UJ1	1726	1	9	25	6	635	50	33	151		10	428	336		42
R1	89					55							31		3
SubTotal:	107259	320	25777	51	112	11579	6820	912	1232	140	130	30094	29984	0	108
Validation															
J	1482	11				1340	69	19	5			20	18		
U	5											5			
JB	48											48			
UJ	920					293	61	5				304	256		1
V	18077	115	18			2720	1370	660	548			5842	6712	80	12
V	1												1		
R	72	5				29						38			
SubTotal:	20533	126	18	0	0	4353	1500	684	553	0	0	6219	6987	80	13
Total:	127792	446	25795	51	112	15932	8320	1596	1785	140	130	36313	36971	80	121
Percent Verified:	51%	39%	0%	100%	100%	66%	81%	57%	69%	100%	100%	41%	80%	0%	85%
Percent Validated:	16%	29%	0%	0%	0%	28%	18%	43%	31%	0%	0%	17%	19%	100%	11%
Percent Rejected:	0.2%	1.6%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	2.6%

Note: Validation frequencies less than the programmatic goal of 25% are shaded gray.

5.0 REFERENCES

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K-H, 2002e, V&V Guidelines for Metals, DA-SS05-v3, October.

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ENCLOSURE

IHSS GROUP NE/NW REAL AND QUALITY CONTROL DATA
(Compact Disc)

106
106

Best Available Copy

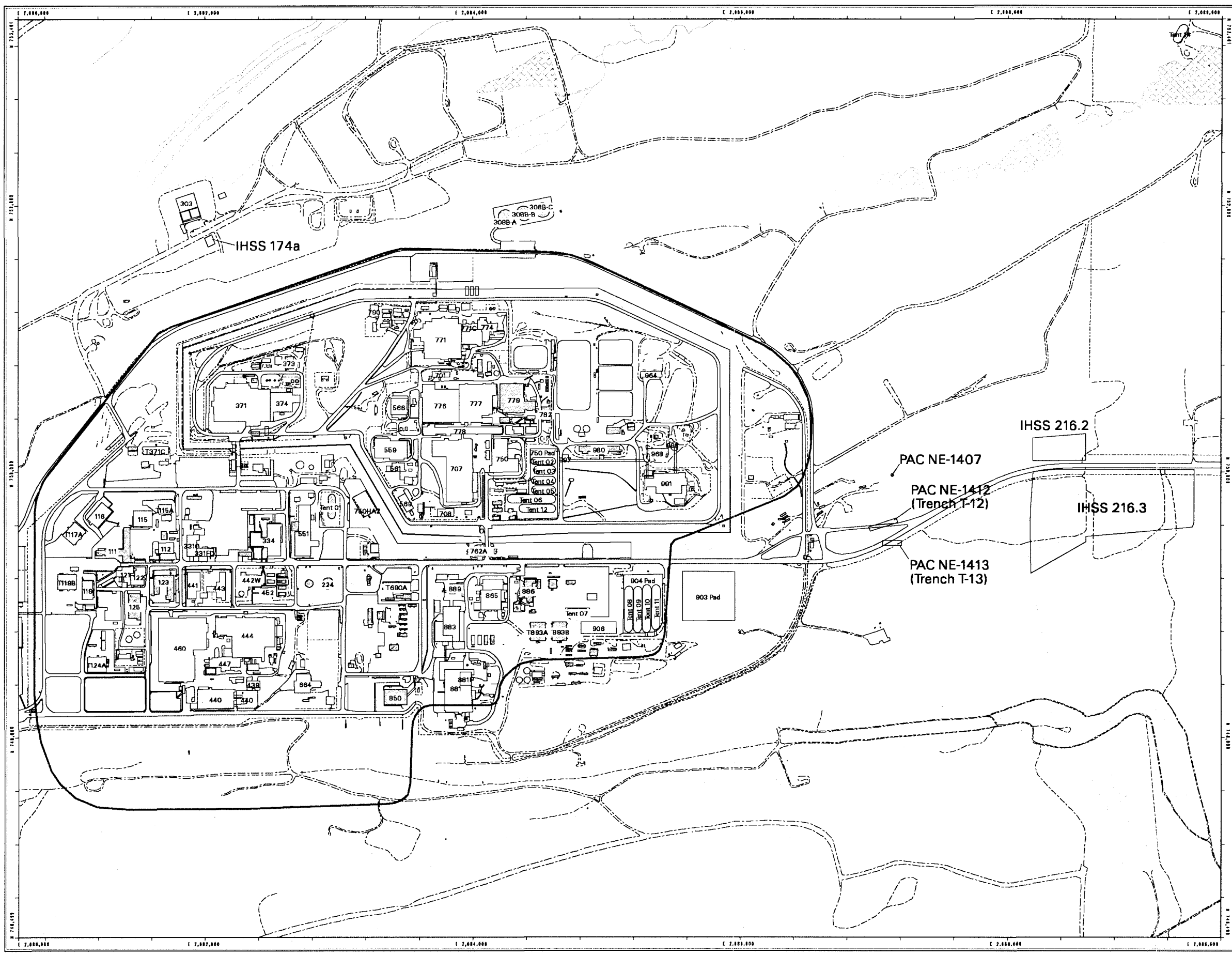


Figure 1
IHSS Group NE/NW Location Map

EXPLANATION

NE/NW

Standard Map Features

- Buildings and other structures
- Demolished buildings
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads
- Solar Evaporation Ponds (SEPs)
- Industrial Area Operable Unit Boundary

DATA SOURCE BASE FEATURES:
PACs
Historical Release Report (HRR)
2nd Annual Update
Sept. 30, 1997
Individual Hazardous Substance Sites (IHSS)
DOE, 1992, HRR Report and Subsequent Updates.
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSI., Las Vegas.
Digitized from the orthophotographs. 1/95

250 0 500 1000ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-966-7707

Prepared by: DynCorp

Prepared for: RFETS

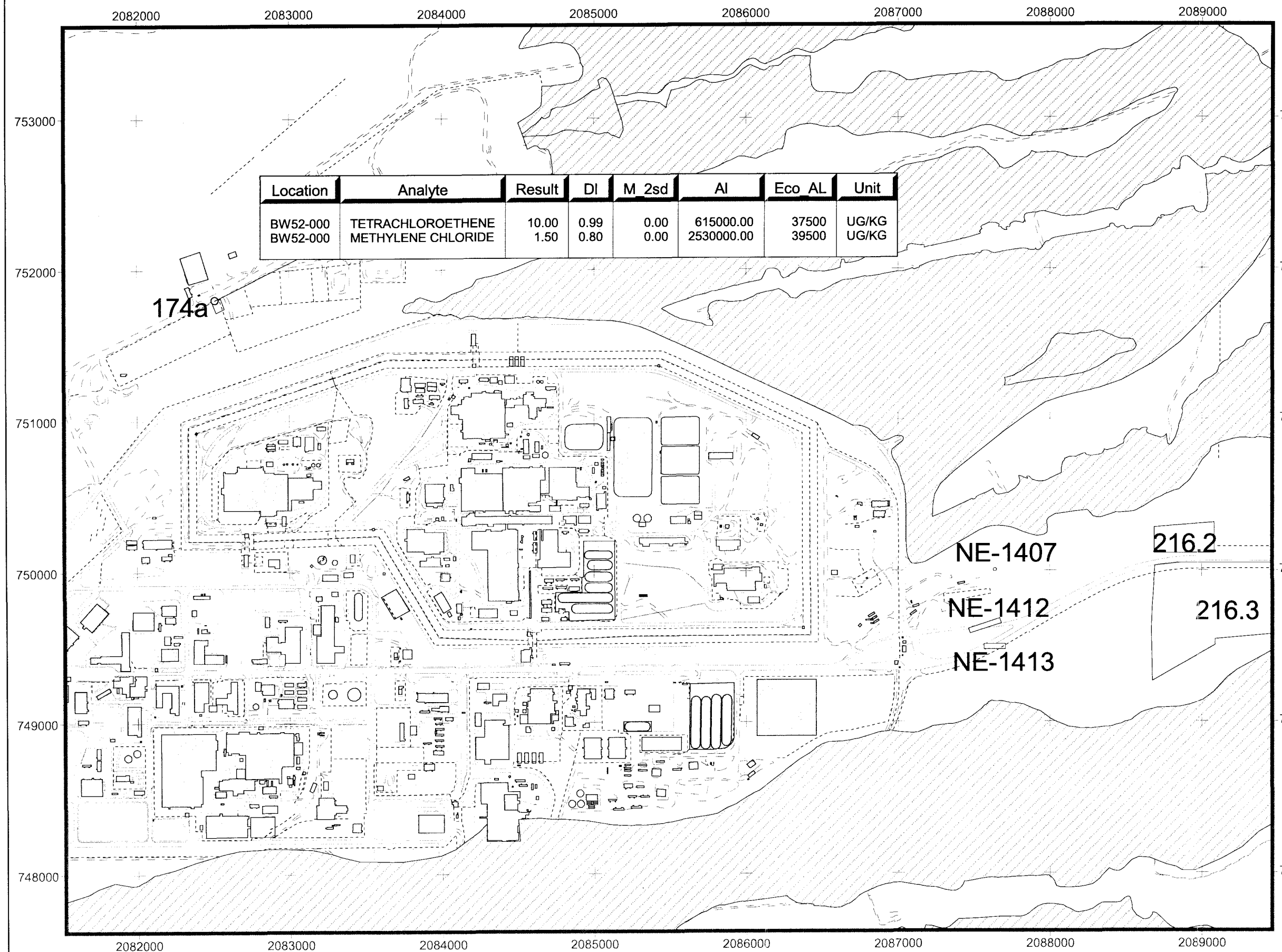
December 23, 2002

NT_Svr w:/projects/er/fy03/ias/ne-nw/characterization/ihss_group_ne-nw.eml

Figure 3

NW Surface Soil Sample Results Greater than Background Mean Plus Two Standard Deviations or Detection/Reporting Limit

Location	Analyte	Result	DI	M_2sd	AI	Eco_AL	Unit
BW52-000	TETRACHLOROETHENE	10.00	0.99	0.00	615000.00	37500	UG/KG
BW52-000	METHYLENE CHLORIDE	1.50	0.80	0.00	2530000.00	39500	UG/KG



KEY

- Sample Location (Below Action Level)
- IHSS
- PAC
- Area Prone to Landslides or High Erosion
- Dirt Road
- Paved Road

Notes:
Only results with Wildlife Refuge Worker (WRW) Action Levels (ALs) are shown.

m_2sd = 0.00 indicates no background values are available
Sbd = Sample begin depth
Sed = Sample end depth
DI = Detection/Reporting Limit
AI = WRW AL
Eco_AI = Ecological Receptor AL

N
W E
S

500 0 500 Feet

Scale = 1: 8000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

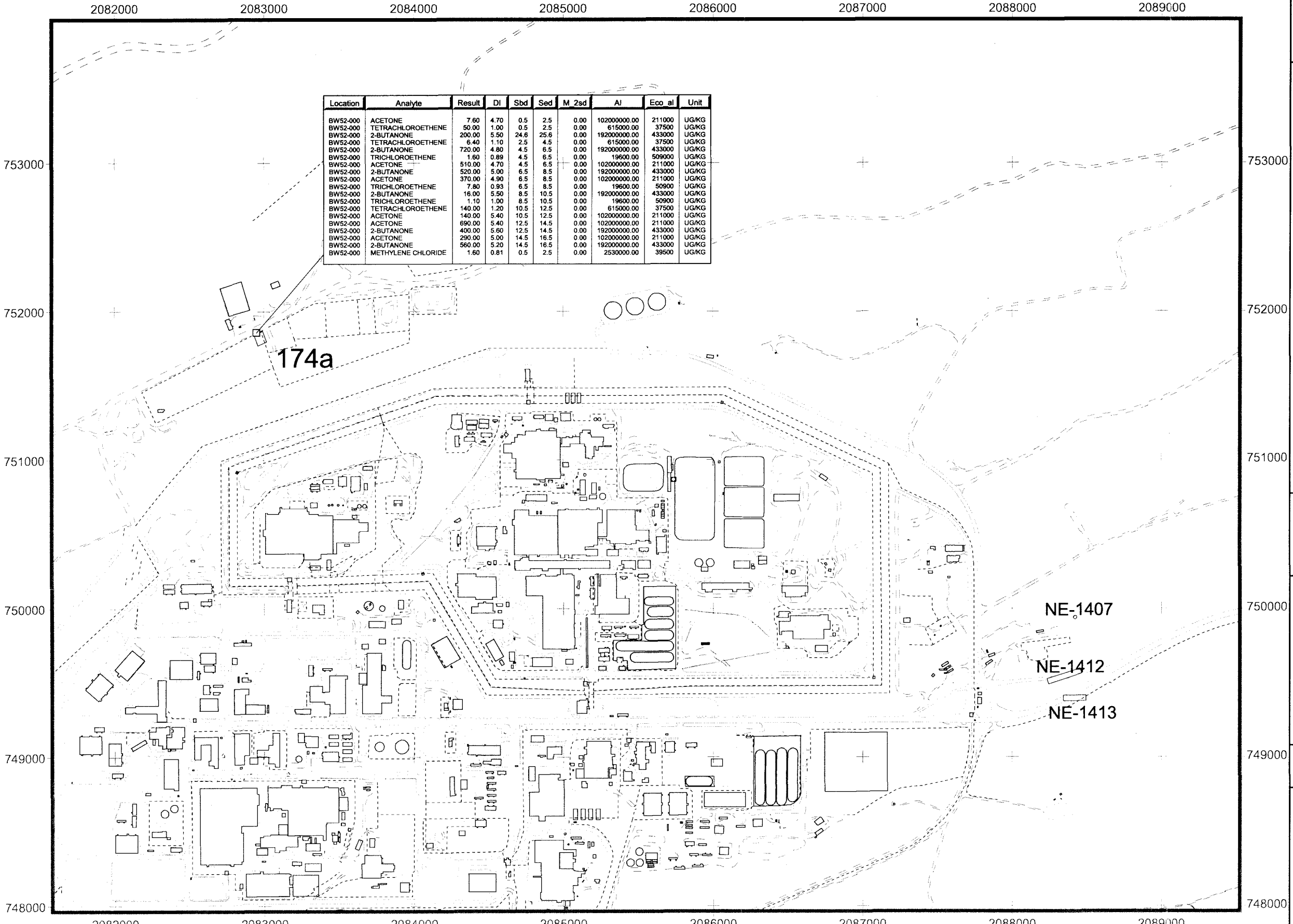
Prepared by: RADMS Date: 6.10.03

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2003\NENW\Characterization\nenw_close_jb.apr

Figure 5
NW Subsurface Soil Sample Results Greater than Background Mean Plus Two Standard Deviations or Detection/Reporting Limit

Location	Analyte	Result	DI	Sbd	Sed	M_2sd	AI	Eco_al	Unit
BW52-000	ACETONE	7.60	4.70	0.5	2.5	0.00	102000000.00	211000	UG/KG
BW52-000	TETRACHLOROETHENE	50.00	1.00	0.5	2.5	0.00	615000.00	37500	UG/KG
BW52-000	2-BUTANONE	200.00	5.50	24.6	25.6	0.00	192000000.00	433000	UG/KG
BW52-000	TETRACHLOROETHENE	6.40	1.10	2.5	4.5	0.00	615000.00	37500	UG/KG
BW52-000	2-BUTANONE	720.00	4.80	4.5	6.5	0.00	192000000.00	433000	UG/KG
BW52-000	TRICHLOROETHENE	1.60	0.89	4.5	6.5	0.00	19600.00	509000	UG/KG
BW52-000	ACETONE	510.00	4.70	4.5	6.5	0.00	102000000.00	211000	UG/KG
BW52-000	2-BUTANONE	520.00	5.00	6.5	8.5	0.00	192000000.00	433000	UG/KG
BW52-000	ACETONE	370.00	4.90	6.5	8.5	0.00	102000000.00	211000	UG/KG
BW52-000	TRICHLOROETHENE	7.80	0.93	6.5	8.5	0.00	19600.00	50900	UG/KG
BW52-000	2-BUTANONE	16.00	5.50	8.5	10.5	0.00	192000000.00	433000	UG/KG
BW52-000	TRICHLOROETHENE	1.10	1.00	8.5	10.5	0.00	19600.00	50900	UG/KG
BW52-000	TETRACHLOROETHENE	140.00	1.20	10.5	12.5	0.00	615000.00	37500	UG/KG
BW52-000	ACETONE	140.00	5.40	10.5	12.5	0.00	102000000.00	211000	UG/KG
BW52-000	ACETONE	690.00	5.40	12.5	14.5	0.00	102000000.00	211000	UG/KG
BW52-000	2-BUTANONE	400.00	5.60	12.5	14.5	0.00	192000000.00	433000	UG/KG
BW52-000	ACETONE	290.00	5.00	14.5	16.5	0.00	102000000.00	211000	UG/KG
BW52-000	2-BUTANONE	560.00	5.20	14.5	16.5	0.00	192000000.00	433000	UG/KG
BW52-000	METHYLENE CHLORIDE	1.60	0.81	0.5	2.5	0.00	2530000.00	39500	UG/KG



KEY

- Below Action Level
- Dirt Road
- Paved Road
- IHSS
- PAC

Notes:
Only results with RFCA Action Levels (ALs) are shown.

m_2sd = 0.00 indicates no background values are available
Sbd = Sample begin depth
Sed = Sample end depth
DI = Detection/Reporting limit

N W E S

500 0 500 Feet

Scale = 1:7,500

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: 6.10.03

Prepared for: KAISER•HILL COMPANY

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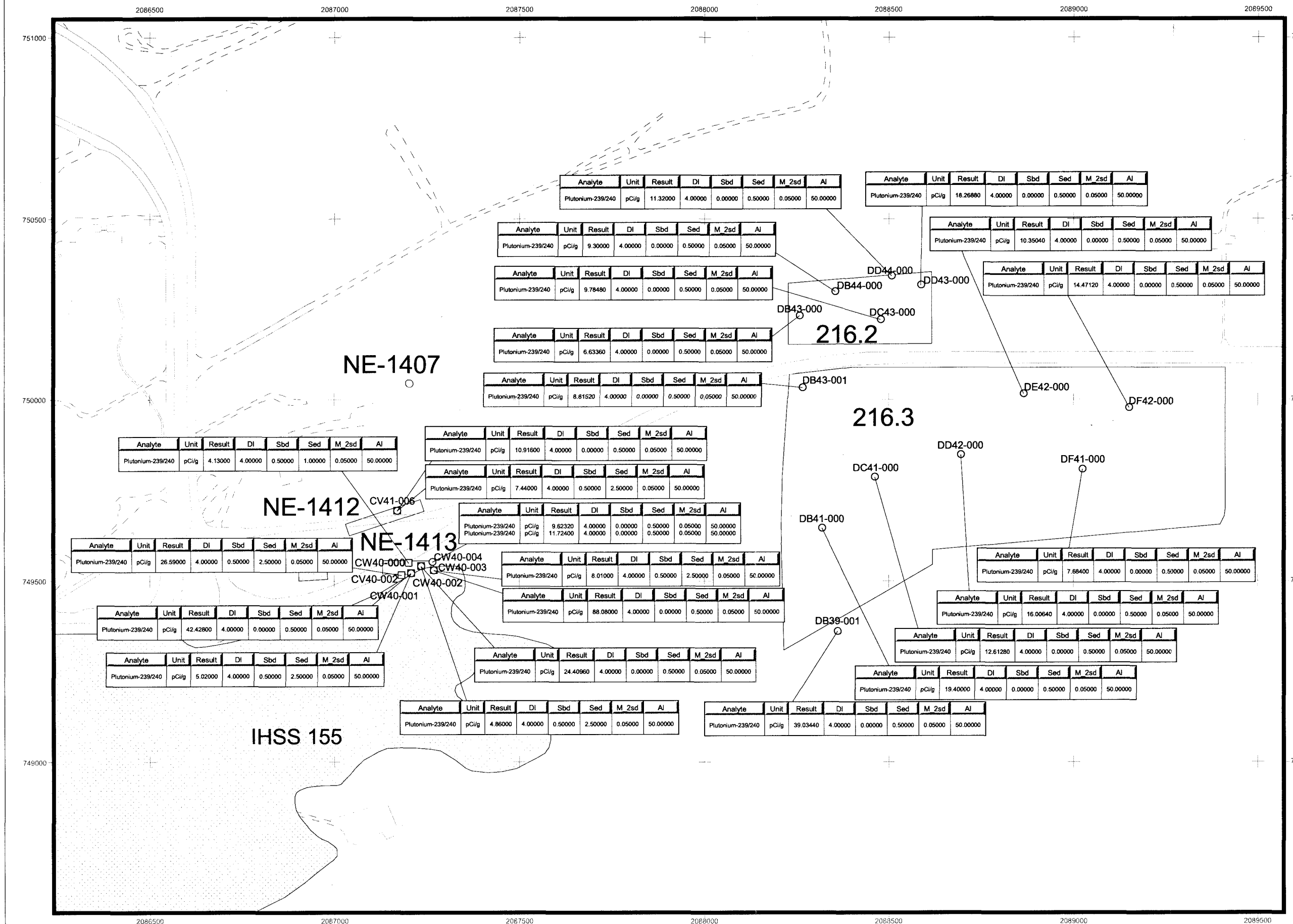
Figure 6
Surface and Subsurface Plutonium Results Greater than Background Mean Plus Two Standard Deviations



Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	11.32000	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	18.26880	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	9.30000	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	10.35040	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	9.78480	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	14.47120	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	6.63360	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	8.81520	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	4.13000	4.00000	0.50000	1.00000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	10.91600	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	7.44000	4.00000	0.50000	2.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240 Plutonium-239/240	pCi/g pCi/g	9.62320 11.72400	4.00000 4.00000	0.00000 0.00000	0.50000 0.50000	0.05000 0.05000	50.00000 50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	26.59000	4.00000	0.50000	2.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	8.01000	4.00000	0.50000	2.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	88.08000	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	42.42800	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	5.02000	4.00000	0.50000	2.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	24.40960	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	4.86000	4.00000	0.50000	2.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	39.03440	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	7.68400	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	16.00640	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	12.61280	4.00000	0.00000	0.50000	0.05000	50.00000

Analyte	Unit	Result	DI	Sbd	Sed	M_2sd	AI
Plutonium-239/240	pCi/g	19.40000	4.00000	0.00000	0.50000	0.05000	50.00000

KEY

- IHSS
- IHSS 155
- PAC
- Dirt road
- Paved area
- ○ Surface Soil Sampling Location
- □ Subsurface Soil Sampling Location

Notes:
Sbd = Soil Begin Depth
Sed = Soil End Depth
M_2sd = Background Mean Plus Two Standard Deviations
AI = Wildlife Refuge Worker (WRW) Action Level (AL)

Ecological Receptor AL for Plutonium-239/240 is 3,800 pCi/g.

N

100 0 100 200 Feet

Scale = 1:4,400

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: Date: 6.10.03

RADMS

Prepared for:

KAISER•HILL COMPANY

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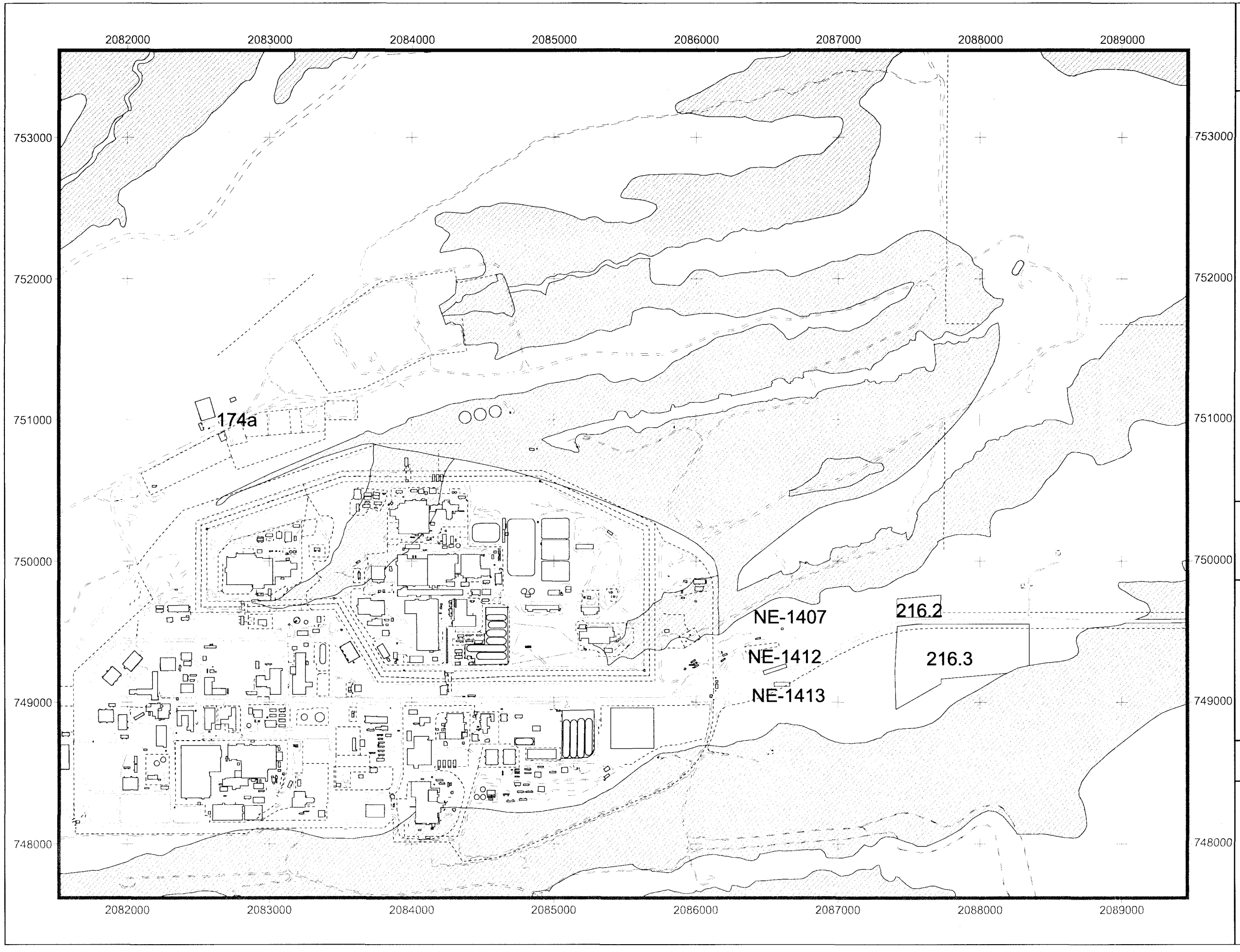

Figure 7
Areas Prone to Landslides and High Erosion

KEY

- Area Prone to Landslides or High Erosion
- IHSS
- PAC
- Paved Road
- Dirt Road

Note:
Areas prone to landslides and high erosion is based on Figure 1 of Attachment 5 of the RFCA Modification (DOE, et. al, 2003).

N
W E
S

500 0 500 Feet

Scale = 1: 8000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: Date: 4.21.03

RADMS

Prepared for:

KAISER•HILL COMPANY

File: W:\Projects\Fy2003\NENW\Characterization\nenw_close_jb.apr

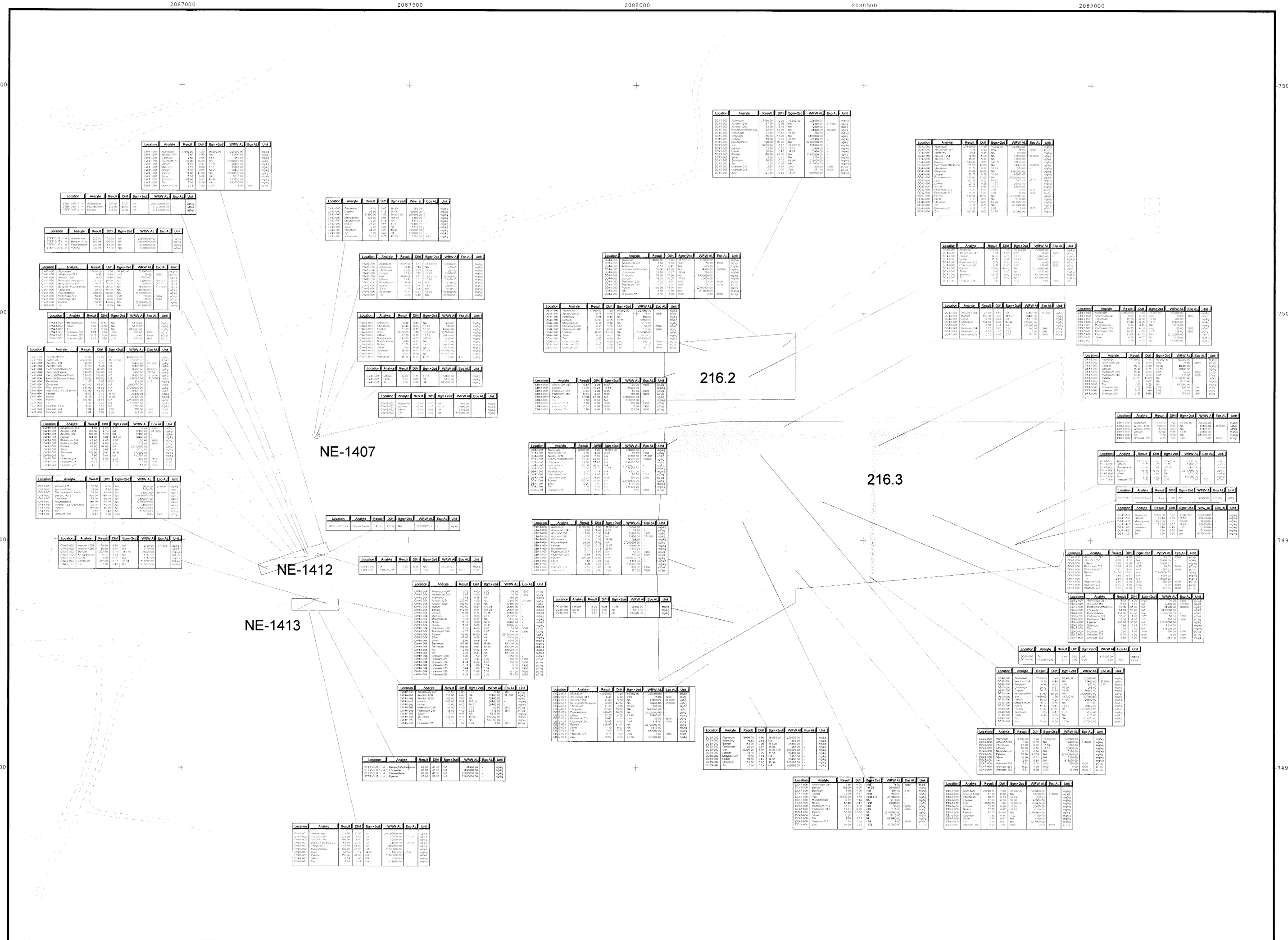

Figure 2
Surface Soil Sample
Results Greater than Background
Mean Plus Two Standard Deviations
or Detection/Reporting Limit

KEY

- Below WRW Action Level
- Dirt Road
- Paved Road
- PAC
- IHSS

Notes:
Only results with WRW Action Levels (ALs) are shown.

Bgm_2sd = 0.00 indicates no background values are available
WRW AL = Wildlife Refuge Worker AL
Eco AL = Ecological Receptor AL
Dl/rl = Detection/Reporting limit

N

100 0 100 200 Feet

Scale = 1: 1700

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: 6.2.03

Prepared for: KAISER•HILL COMPANY

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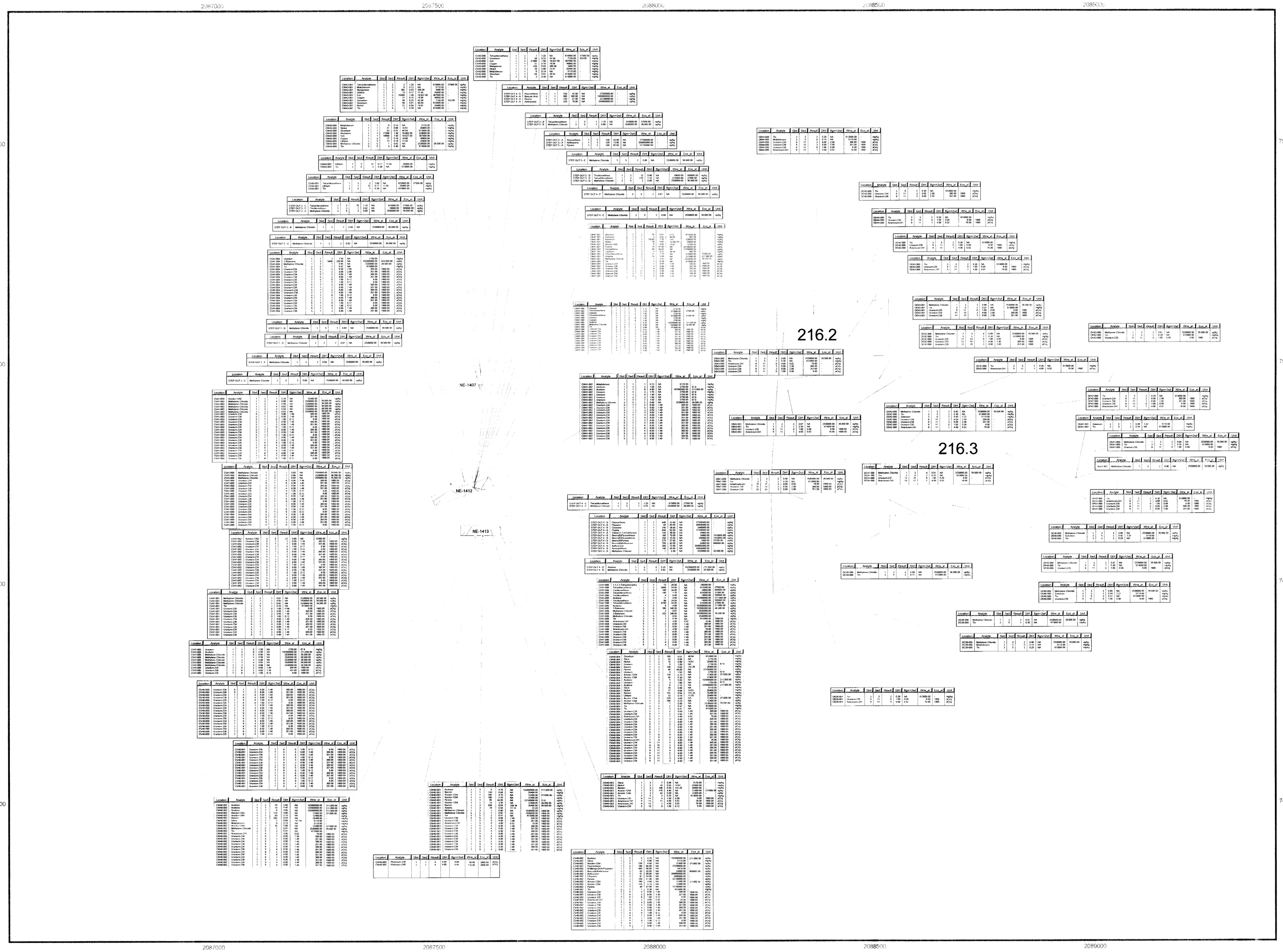

Figure 4
NE Subsurface Soil Sample Results Greater than Background Mean Plus Two Standard Deviations or Detection/Reporting Limit

KEY

- Below WRW Action Level
- Dirt Road
- Paved Road
- PAC
- IHSS

Notes:
Only results with Widllife Refuge Worker (WRW) Action Levels (ALs) are shown.

Bgm+2sd = 0.00 indicates no background values are available
Sbd = Sample begin depth
Sed = Sample end depth
Dl/rl = Detection/Reporting Limit
Eco_Al = Ecological Receptor AL

N

100 0 100 200 Feet

Scale = 1: 2000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS

Date: 6.2.03

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2003\NENW\Characterization\nenw_close_jb.apr